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BRITISH FOOD ADMINISTRATION . . . .

By Montell Ogdon*

The Government of the United Kingdom has accepted the responsibility, subject to the accidents and uncertainties of war, of seeing that the prices of the necessities of the people are kept down and that every person receives a fair share of food. On the one hand, it endeavors to see that food is made available for the purpose of maintaining the physical strength of the people contributing to the war effort, and, on the other hand, it has mobilized the powers of the Exchequer, Board of Education, Ministry of Agriculture, and Ministry of Food in a determined effort to achieve a great and practical ideal: "the ideal that the children of this nation shall not suffer from malnutrition because of the war." The Minister of Food has declared that there shall be no battle for resources in maintaining child health and producing the maximum of war materials by the adult population. "I believe that we are able to do both," said Lord Woolton (11, pp. 355-356), *"and I will go further and say that we must do both even if we have to do it at some sacrifice from those of us who are neither children nor come in the category of being physically heavy workers."*

MINISTRY OF FOOD

Functions

It is the function of the Ministry of Food to get ample food supplies to consumers at reasonable prices, and where inadequate supplies are available to make the most equitable distribution among consumers in light of the national exigencies. In seeing that every person receives his fair share of food, the Ministry of Food must make the system of distribution work. It becomes their task "to control the whole process of distribution from the farm or the port to the consumer, to make sure that there is no shortage or dislocation of supplies."[1] The system of control "varies from one commodity to another according to the particular conditions, e.g., sources of supply, trading organisation, marketing and so on."[2] The general lines of control are as follows: "The Ministry arrange for purchases abroad for the country as a whole. They take over bulk stocks in this country and future arrivals - so that they may be made available for the public and can be sent where they are needed. Traders are required to operate under licence as part of the national system. In this way the Ministry direct distribution, using so far as possible the existing machinery of the trades and availing themselves of the advice of trade representatives."

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1 [GREAT BRITAIN] MINISTRY OF FOOD. FOOD DEFENCE PLANS. [Gt. Brit.] Min. Foods Bul. 2: 3. 1939. [Mimeographed.] [Reprint from Scotsman, Sept. 9, 1939.] See Beveridge *(4, pp. 17-27)*.

2 [GREAT BRITAIN] MINISTRY OF FOOD. THE MACHINERY OF FOOD CONTROL. [Gt. Brit.] Min. Food Bul. 5: 3. 1939. [Mimeographed.]

The method used, in the first place, is "to concentrate the making of purchases abroad in the hands of the Government.* * * But, in the second place, the Government must control supplies at home; for otherwise it would be impossible to ensure satisfactory distribution and reasonable prices." The Ministry of Food has therefore, in many cases, taken over bulk stocks of commodities.[3]

The Ministry, in fullfillment of its responsibility, has found it necessary to exercise various degrees of control over the food trades. Adjustments resulting in limitations upon freedom of action or profits are effected, in the words of Lord Woolton *(12)*,[4] "in such manner as to leave the trades unharmed, perhaps even improved, for the return to ordinary commercial life."

Insofar as is expedient, distribution is carried on through the normal channels of business. Committees representing the producing, middleman, and distributing sections of the tea trade, for example, assisted in the drawing up of the tea-control scheme and were retained as the three sections of the Tea Control Committee, in a Commodity Division of the Ministry of Food. The tea-control scheme is based on the principle of maintaining the normal machinery of the trade.

Though an effort is made in the case of all commodities to retain production and distribution within the normal peacetime agencies, the degree of interference may be much greater with respect to certain commodities than with others. Thus, the necessity of delivering milk in the interest of consumers has resulted in greater control over milk distribution than is exercised over the distribution of other farm products. Similarly, the nature of the oil and fat supply situation required greater control over that industry than over most others.

Organization

The Food (Defence Plans) Department subsidiary to the Board of Trade was established in December 1936 to make defense plans for the organization of a Ministry of Food.[5] Early in September 1939 this department was absorbed by the Ministry of Food. From a headquarters staff of 375, including employees of all ranks, and a nucleus Divisional Organisation that existed before the outbreak of the war, the department was expanded into a fully developed Ministry with 18 self-sufficient regional divisions.

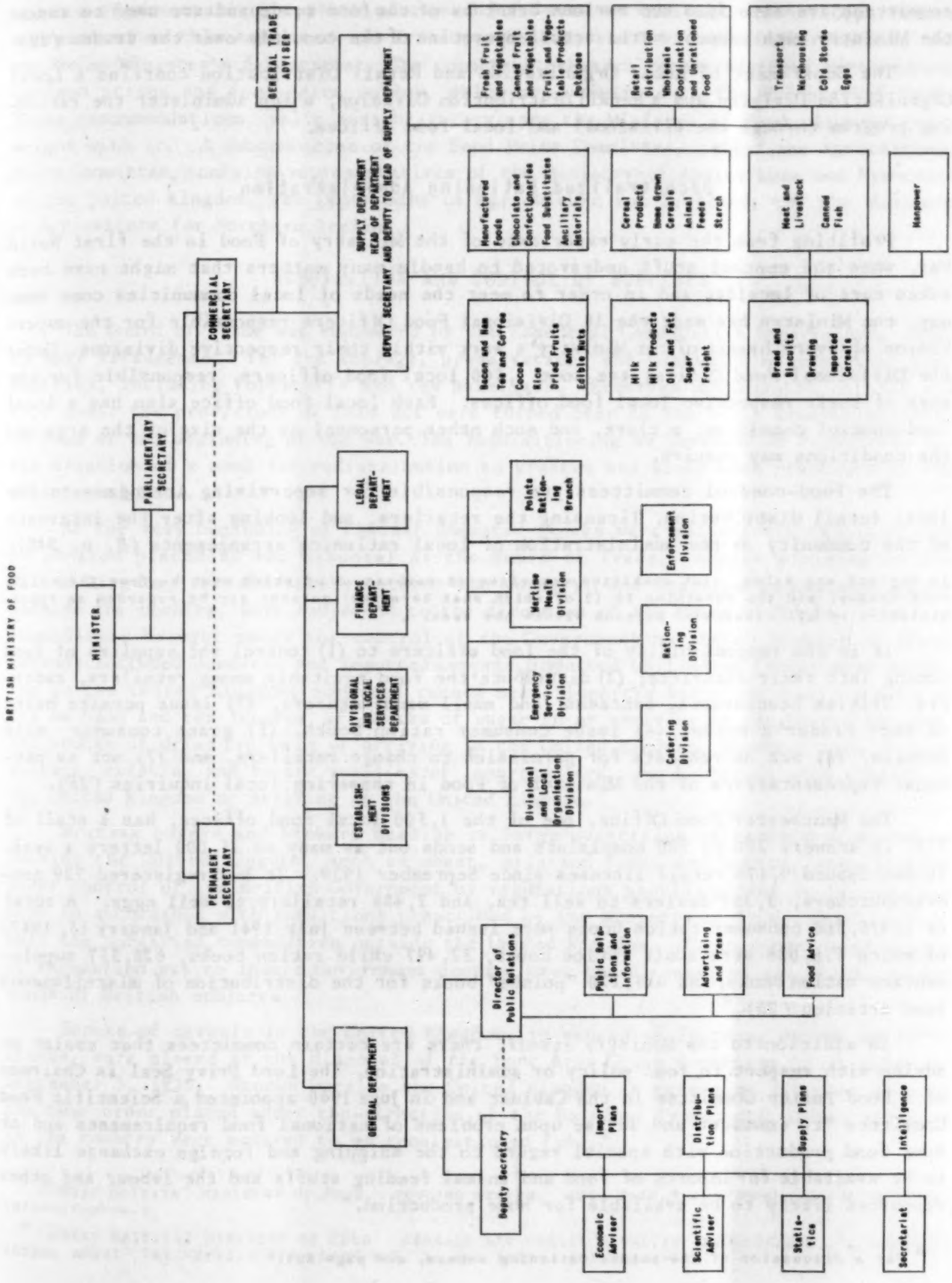
Under the Minister is a Parliamentary Secretary, who since Lord Woolton became Minister in April 1940, represents the Ministry in the House of Commons. A Permanent Secretary is responsible for administration of five Departments, namely, the General Department, the Finance Department, the Legal Department, the Establishment Divisions, and the Department of Divisional and Local Organisation. A Commercial Secretary acts as the head of the Supply Department.

The Supply Department contains ten Divisions, which exercise the necessary control over commodities and handles such economic problems as transportation and cold storage. Within the Commodity Divisions are 30 or more Commodity Controllers who control the respective food trades and who are usually chosen from the trade. The

[3] [GREAT BRITAIN] MINISTRY OF FOOD. FOOD DEFENCE. [Gt. Brit.] Min. Food Bul. 3: 2. 1939. [Mimeographed.] [Reprinted from The Times (London), Sept. 25, 1939.]

[4] Italic numbers in parentheses refer to Literature Cited, p. 225.

[5] For an account of the establishment of the Ministry of Food, see Franklin *(8)*.


BRITISH MINISTRY OF FOOD
MINISTER
PARLIAMENTARY SECRETARY
COMMERCIAL SECRETARY
PERMANENT SECRETARY
GENERAL TRADE ADVISER
SUPPLY DEPARTMENT
HEAD OF DEPARTMENT
DEPUTY SECRETARY AND DEPUTY TO HEAD OF SUPPLY DEPARTMENT
Fresh Fruit and Vegetables
Canned Fruit and Vegetables
Fruit and Vegetable Products
Potatoes
Retail Distribution
Wholesale Coordination and Unrationed Food
Transport
Warehousing
Cold Stores
Eggs
Manufactured Foods
Chocolate and Confectionaries
Food Substitutes
Ancillary Materials
Cereal Products
Home Grown Cereals
Animal Feeds
Starch
Meat and Livestock
Canned Fish
Manpower
Bacon and Ham
Tea and Coffee
Cocoa
Rice
Dried Fruits and Edible Nuts
Milk
Milk Products
Oils and Fats
Sugar
Freight
Bread and Biscuits
Brewing
Imported Cereals
LEGAL DEPARTMENT
FINANCE DEPARTMENT
DIVISIONAL AND LOCAL SERVICES DEPARTMENT
ESTABLISHMENT DIVISIONS
Points Rationing Branch
Wartime Meals Division
Emergency Services Division
Divisional and Local Organisation Division
Enforcement Division
Rationing Division
Catering Division
GENERAL DEPARTMENT
Director of Public Relations
Public Relations and Information
Advertising and Press
Food Advice
Deputy Secretary
Import Plans
Distribution Plans
Supply Plans
Intelligence
Economic Adviser
Scientific Adviser
Statistics
Secretariat

Commodity Divisions are assisted by some 48 advisory committees. Members of these committees are also from the various branches of the food trade and are used to assist the Ministry with respect to the actual operation of the controls over the trades *(19)*.

The Department of Local Organisation and Retail Distribution contains a Local Organisation Division and a Retail Distribution Division, which administer the rationing program through the divisional and local food offices.

Decentralized Rationing Administration

Profiting from the early experience of the Ministry of Food in the first World War, when the central staff endeavored to handle many matters that might have been taken care of locally, and in order to meet the needs of local communities come what may, the Ministry has made the 18 Divisional Food Officers responsible for the supervision of every branch of the Ministry's work within their respective divisions. Under the Divisional Food Offices are some 1,500 local food officers, responsible for the work of their respective local food offices. Each local food office also has a local food-control committee, a clerk, and such other personnel as the size of the area and the conditions may require.

The food-control committees are responsible for supervising arrangements for local retail distribution, licensing the retailers, and looking after the interests of the community in the administration of local rationing arrangements *(8, p. 548)*:

> In England and Wales, each committee comprises 15 members, 5 of which must be from the retail food trades, and the remaining 10 (2 of which must be women) persons may be regarded as representative of all classes of persons within the area.

It is the responsibility of the food officers to (1) control the supplies of food coming into their districts; (2) distribute the food equitably among retailers, caterers, British Restaurants, canteens, and small manufacturers, (3) issue permits based on each trader's needs, (4) issue consumer ration books, (5) grant consumer milk permits, (6) act on requests for permission to change retailers, and (7) act as personal representatives of the Minister of Food in answering local inquiries *(15)*.

The Manchester Food Office, one of the 1,500 local food offices, has a staff of 117. It answers 200 to 300 complaints and sends out as many as 15,000 letters a week. It has issued 9,170 retail licenses since September 1939. It has registered 729 general butchers, 3,389 dealers to sell tea, and 2,488 retailers to sell eggs. A total of 1,875,360 consumer ration books were issued between July 1941 and January 15, 1942, of which 576,036 were adult ration books, 52,497 child ration books, 628,557 supplementary ration books, and 618,270 "points" books for the distribution of miscellaneous food articles *(25)*.[6]

In addition to the Ministry itself, there are certain committees that assist or advise with respect to food policy or administration. The Lord Privy Seal is Chairman of a Food Policy Committee in the Cabinet and in June 1940 appointed a Scientific Food Committee "to consider and advise upon problems of national food requirements and of home food production with special regard to the shipping and foreign exchange likely to be available for imports of food and animal feeding stuffs and the labour and other resources likely to be available for home production."

[6] For a discussion of the points rationing scheme, see page 221.

There is an interdepartmental committee, known as the Food Price Committee, of which a representative of the Ministry of Food acts as chairman. Other Departments represented on this committee are Treasury, Health, the War Cabinet Secretariat, and the Prime Minister's Secretariat. The committee prepares recommendations with respect to food prices and food-price policy, which are submitted to the Ministry of Food. These recommendations, while not obligatory upon the Ministry of Food, do have great weight with it. A subcommittee of the Food Price Committee, called the Agricultural Price Committee, contains representatives of the Ministry of Agriculture and Fisheries of the United Kingdom, the Department of Agriculture for Scotland, and the Ministry of Agriculture for Northern Ireland.

ACQUISITION AND CONTROL OF SUPPLIES

The Board of Trade was empowered by the Essential Commodities Reserve Act, 1938, to make arrangements for the storage, preservation, and transport of essential commodities, including foodstuffs and raw materials. Reserves accumulated in 1938 and 1939 under the provisions of this act were turned over to the newly created Ministry of Food at the beginning of the war. The requisitioning or purchase of foodstuffs for the creation of a pool for redistribution to traders has since been practiced by the Ministry of Food.

At the very beginning of the war domestic stocks were extensively requisitioned or ordered placed at the disposal of the Board of Trade. Stocks arriving in the United Kingdom, certain stocks outside the country, and dealings in certain stocks outside the country, were subjected to the direction of the Board of Trade. Stocks of commodities brought under the control of the Government by one or another of these methods included domestic and imported cereals, imported chilled or frozen meat arriving in the United Kingdom, imported canned meat, imported bacon and hams, stocks of tea on hand and tea imports, all stocks of sugar in or arriving in the United Kingdom, all stocks of dried fruits in or arriving in the United Kingdom, imported pork in cold storage, existing and future supplies of imported lard, and butter in cold storage in the United Kingdom or arriving in the United Kingdom.[7]

British buyers and brokers dealing in large quantities of certain commodities outside the United Kingdom, such as wheat, oils and fats, and butter, were brought under control of the British Government by regulations providing that no person, except in accordance with conditions prescribed by the Ministry of Food, should buy or sell the specified commodities outside the United Kingdom. The purpose of this type of regulation was to insure Government control over the disposal of all stocks in the hands of British subjects.

Stocks of cereals in the United Kingdom, in excess of 50 tons, except millers' stocks, were placed at the disposal of the Port Area Grain Committee by an order of September 3, 1939. Stocks outside the United Kingdom in excess of 100 tons were by the same order placed under the direction of the Board of Trade, and stocks arriving in the country were ordered to be requisitioned *(10)*.[8]

[7] [GREAT BRITAIN] MINISTRY OF FOOD. POOLING SYSTEM. [Gt. Brit.] Min. Food Bul. 8: 6. 1939. [Mimeographed.]

[8] [GREAT BRITAIN] MINISTRY OF FOOD. CEREALS AND CEREAL PRODUCTS (REQUISITION AND CONTROL) ORDER, 1939. [Gt. Brit.] Min. Food Bul. 1: 1. 1939. [Mimeographed.]

Millers have been required to forward to the Wheat Commission information showing the actual and potential output of their mills. No person is allowed to mill any cereal at a mill for which the required return has not been made. By orders of September 3, 1939, flour mills were placed under license, with a general license authorizing millers to mill and deliver cereals or cereal products and to mill straight flour until further notice.[9] Types of wheat flour that the millers were allowed to produce were subsequently defined in detail,[10] but the Government was reluctant to make wheat-meal bread compulsory.

The Ministry of Food, however, advocated greater use of wheat-meal bread. Consumption of this bread, made of "national wheat-meal flour" at first showed some increase as a result of the Government's campaign, but still remained relatively small as compared with the total consumption of all bread. Consequently, the Ministry announced on March 11, 1942, that from March 23 millers would not be allowed to produce flour of less than 85 percent extraction.[11] Thus white flour is destined to disappear and to be replaced entirely by national wheat meal and authorized brown flours.

Control of Agricultural Production

The regulatory powers needed to obtain more efficient agricultural production and especially increased production of foodstuffs essential to the life of the community were also delegated to the Ministry of Agriculture by the Defence Regulations promulgated August 25, 1939. The fact that the fixing of food prices and the responsibility for feeding the Nation is in the hands of the Ministry of Food whereas the regulation of agriculture is within the province of the Ministry of Agriculture places the difficult burden upon these two Ministries of reconciling the interest of consumers in low food prices and the interest of the farmers in adequate prices to cover increased costs of production.

The Ministry of Food and the Ministry of Agriculture worked out together a joint program for home food production and food imports. The two Ministries are in constant consultation with respect to future food requirements and future programs for satisfying those needs *(26)*.

Home production is planned with regard to (1) the nutritional welfare of the Nation, (2) what can be grown most efficiently in the United Kingdom, (3) available shipping space, and (4) public taste. Consequently, milk and milk products such as cheese are placed at the top of the list of articles, production of which in the United Kingdom is deemed to be of fundamental importance. Potatoes are placed second on the list because of their productivity and general use, after which come wheat, oats, and barley. Beef cattle and sheep come after cereals, and last of all come hogs and poultry.

[9] [GREAT BRITAIN] MINISTRY OF FOOD. FLOUR (PRICES) (NO. 1) ORDER, 1939. [Gt. Brit.] Min. Food Bul. 1: 2. 1939. [Mimeographed.]

[10] Millers were allowed under general license to produce "national straight run flour," with an extraction of 75 to 85 percent, "national wheat-meal flour," with an extraction of over 85 percent, and certain specialty flours, known as proprietary self-raising flour and proprietary brown flour.

[11] Certain exceptions were allowed in order to absorb the existing stocks of white flour, but from April 20 white bread was not allowed on sale *(20)*.

The Ministry buys "practically everything the British farmer produces," and thus has had a very considerable effect upon the methods and practice of British farming. The influence on agriculture is exercised "first of all through the patriotism and good will of the farmers; and then by fixing prices in such a way as to encourage them to produce what we want" *(5)*. Prices generally are fixed in order to call forth increased production of the products most needed for the nutritional welfare of the Nation. The guaranteed prices in 1940 and 1941 for wheat, potatoes, and milk were thus considerably above those paid for the same products in 1939.

Because of difficulties in arriving at fair and equitable prices, announcement of guaranteed prices for 1942 crops and livestock was not made until late in February of this year. In order to take into account the higher wages for agricultural labor and other costs, the prices for 1942 were in most instances considerably above those fixed in the summer of 1940, when most of them were last raised. The price of wheat was increased from 14s. 6d. to 16s. per hundredweight, feeding oats from 13s. 6d. to 14s. 6d., and milling oats from 13s. 9d. to 14s. 9d. The new price of potatoes allows the grower an increased return of 5s. per ton. Prices for the 1942 wool clip were raised so as to give an average increase of 2d. per pound, and prices of eggs were rasied by an amount representing an average increase of 1d. per dozen.[12] Except for minor adjustments there were no increases in the prices for fat cows, bulls, and calves, but graduated increases were announced for fat heifers and steers, representing an average of 6s. 6d. per hundredweight over the full year.[13]

Control of Agricultural Supplies

Another way in which the Ministry of Food influences the direction of agricultural production in the national interest is through the control of supplies essential to agricultural production, especially feedstuffs and fertilizers. Thus feedstuffs, which must be rationed because of the extent to which the Nation formerly depended upon their import, are made available in larger quantities for production of livestock deemed by the Ministry economical and necessary than for other types of livestock.

An animal-feedstuffs-rationing program came into force on February 1, 1941, in pursuance of four orders issued by the Ministry of Food. All feed dealers are required to obtain licenses under the scheme, unless the dealer is a grower or consumer or unless the feeds are to be used for human consumption, for seed, or for industrial purposes *(13)*. A system of ration cards, coupons, and buying permits was set up covering sale of practically all feedstuffs except hay, straw, chaff, and roots *(14)*.

The Ministry of Food has restricted the quantities of grain made available for feeding poultry on the ground that the grain will be of greater food value if used in other ways. It is pointed out, also, that many growers of poultry can find pieces of unused land for providing their own feed. Other instances of restrictions affecting production may be found in the livestock rations announced by the Ministry of Food on March 19. During the summer months, for example, rations for calf feed cannot be taken in the form of protein or cereal coupons. Applications will not be taken for calf-feed rations for calves over 6 months old, and committees have been ordered to

[12] Minister of Agriculture's radio broadcast on agricultural prices, Feb. 20, 1942, printed in The Times (London), Feb. 21, 1942.

[13] Joint Announcement of the Agricultural Departments and the Ministry of Food, Feb. 28, 1942.

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withhold calf rations if there is evidence that calves are being reared on milk. No rations are allowed for horses except in case of need, yet extra rations are allowed for pedigreed hogs and sound poultry breeding stock *(7)*.

Commodity Marketing Schemes

There were marketing boards in operation for four commodities before the war began; namely, milk, hogs, potatoes, and hops. Marketing of each of these products has been brought under the control of the Ministry of Food and the pre-war scheme replaced by a more comprehensive regulation of producers' sales and distribution. New controls of a comprehensive nature have also been established for wheat, oats, barley, rye, carrots, onions, apples, and eggs.

The most comprehensive of the agricultural-product marketing and distribution controls is that for milk, which is discussed in the following section. Space does not permit the discussion here of each of the other commodities. However, the schemes do have certain common characteristics; namely, fixed growers' prices, a guaranteed market for certain types or standards of products, and the requirement that sales by producers be made to Government buyers or persons licensed by the Government.

Milk control

One of the principal achievements of the Ministry of Food has resulted from its effort to obtain a more equitable distribution and an increase in the consumption of liquid milk. The price of liquid milk available for family use was at the beginning of the war fixed by agreement between wholesalers' boards and Milk Marketing Boards, the latter representing the milk producers.[14] The Government under the Milk Act, 1934 to 1937, provided a grant of £500,000 yearly toward the cost of approved milk schemes for increasing milk consumption, chief of which were the programs for supplying milk to school children at reduced cost *(2, p. 552)*.

With the decision of the Ministries of Food and Agriculture to direct milk production and dairy-product industries in the interest of the nutritional welfare of the entire population, the milk boards, which previously had operated more or less independently, were placed under the Ministry of Food, and steps were taken to assist consumers and producers.

In addition to the school milk programs the Ministry of Food provided that all children under 5 years of age who were not attending school and expectant or nursing mothers should be allowed to obtain milk through the regular retail channels at 50 percent of the regular prices. Provision was also made for the delivery of milk free of charge for those classes of consumers unable to pay for it. Under a priority system introduced October 1, 1941, all consumers were required to register with a retail dairy; a pint of liquid milk was made available to all expectant mothers and to infants up to 5 years of age under the National Milk Scheme; half a pint was made available for children and adolescents up to 18 at regular prices; priority was given to

[14] For organization and operation of the milk boards created under the Agricultural Marketing Act of 1933, see Agricultural Register *(1, pp. 97-172)*; World Trade in Agricultural Products *(2, pp. 551-553)*; and Hall *(23, pp. 233-236)*.

invalids, hospitals, and institutions; and provision was made for larger allocations of powdered and condensed milk to "the general public and the Services."[15]

Consumption of liquid milk rose under the Ministry's program from 754 million gallons in 1938 to 945 million gallons in 1941. The upward trend in milk consumption was obstructed, however, in the fall of 1941 by the seasonal decline in production. This problem was met by three steps; namely, curtailment of manufacture of dairy products, reduction in the rations of nonpriority consumers, and distribution of condensed milk to nonpriority consumers to make up in part for the deficiency in fresh milk. By the rationing of the milk supply, which was at a seasonal low in November, 1 pint continued to be made available daily for children, mothers, invalids, and other members of priority groups.

With the seasonal increase in milk production in the spring of 1942, Lord Woolton announced that the Ministry of Food would utilize all the milk available to insure a sufficiency of milk in one form or another in the coming winter. An increase in the nonpriority adult milk allowance from 2½ to 3 pints a week was also made effective as of March 29, 1942 *(28, p. 7)*.

The number of mothers and children in Great Britain receiving milk under the National Milk Scheme at the end of December (1941) was 3,140,447, of which 25 percent received free milk *(18)*. As of March 15, 1942, a total of 3,500,000 children were receiving two-thirds of a pint of milk daily in addition to the priority supplies delivered to homes. Some 165,000 school children, designated as necessitous, were receiving the milk without charge.

One consumer license covers the arrangements for free or cheap milk, cod-liver oil, and fruit juices. Children and mothers entitled to free milk may also receive cod-liver oil and fruit juices without charge.[16] Those entitled to milk at 2d. a pint will have to pay 10d. for a 6 weeks' supply of cod-liver oil, 5d. a bottle for a 2 weeks' supply of currant sirup and orange sirup, and 2½d. for a week's supply of currant purée *(27. p. 6)*.

Due to factors tending to cause rising costs of production, the retail price of milk was raised twice in the first year of the war, and steps were taken to hold down costs of production and distribution. Dairy farmers were given priorities in allocation of feedstuffs, and the prices of feedstuffs were brought under the control of the Ministry. Milk dealers were restricted to one delivery a day, except in areas where overnight storage facilities were not available. Steps were also taken to curtail further and to consolidate retail milk-delivery services. A large number of distributors voluntarily made arrangements among themselves for the restriction of deliveries, but an order was issued May 30, 1940, bringing all distributors into line.

In England, Scotland, and Wales the milk-marketing boards were given additional powers, which they exercise under the Food Ministry's supervision and subject to any specific direction of the Minister. They have power, under the authority of the Ministry of Food, to fix prices and terms under which milk may be sold or to vary the terms of the existing contracts. In Northern Ireland dairymen are placed directly under the control of the Ministry of Agriculture for Northern Ireland rather than

[15] MURRAY, ALTON T. AGRICULTURAL DEVELOPMENTS. *In* Bliss, Don C. Economic and Financial Review, August. U. S. Cons. Rpt. 23999, pp. 17-21. Sept. 15, 1941. [Typewritten.]

[16] Statement of Major Lloyd George in the House of Commons, Mar. 3, 1942.

under an independent milk board. All milk produced must be placed at the disposal of the Ministry of Agriculture. Producers must obtain licenses to operate, keep accounts, supply information concerning production and sale of milk, and submit their premises to inspection. In a move to level up the milk supply, the Ministry of Food announced in December 1941 that the milk-distribution scheme would be extended to the large number of small producer-retailers. In January 1942 the Ministry extended milk control to the small producer-retailers in rural areas.

The Government agrees with the milk producers' decision that producers, because of the importance of planning their industry, should be advised in advance of the price of milk they will receive during a 12 months' period. An increase of 2d. per gallon on the guaranteed price to producers was granted by the Minister of Food, effective April 1, 1942, to replace the old milk-producer contracts that expired March 31, 1942. This price, however, was not approved by the milk boards, which entered into discussions with the Ministry of Food with a view to obtaining a better price.

Control of the oil and fat industry

Governmental control over oils and fats was initiated in September 1939 in order to insure an adequate supply of raw materials for the margarine and compound cooking fat factories, to avoid fluctuations in the price of raw materials, and to maintain a steady supply and price of margarine and compound cooking fat for consumers.

Statutory rules and orders, dated September 4 and 11, 1939, established the prices current on August 29 as maximum prices for animal oils and fats, forbade the acquisition, sale, or offer of animal oils or fats within or without the United Kingdom in excess of the gross weight of 50 tons except under license after September 25, forbade anyone to engage in the manufacture or treatment of animal oils or fats except under license after September 25, and ordered the furnishing of a return showing the quantities over 50 tons gross weight held by individuals or firms or, if afloat, the name of the ship transporting the cargo and any other particulars demanded.

On October 7, 1939, a food-control scheme for vegetable oils, marine oils, and the manufacture of margarine and compound cooking fats become operative. The scheme as announced provided that some 63 crushing mills, 46 refineries, 65 margarine and compound cooking fat factories, and 7 hydrogenating plants should operate on the Ministry of Food's account. Large quantities of oilseeds and oils were purchased by the Ministry of Food in order that there should be no interruption of supplies. Large reserves of whale oil were also reported to have been accumulated.

Plans, at first in October 1939, were made for marketing only one standard brand of margarine at a fixed price in order to secure the most economical working of factories, to simplify price control, and to insure equitable distribution. On November 11, 1939, due to improvement in the supply situation, this manufacture of "pool" margarine was suspended and the return to marketing of branded goods was authorized. The manufacturers, wholesalers, and retailers of margarine and cooking fats were still required, however, to have licenses in order to operate.

On June 8, 1940, sales of edible oils and fats for manufacturing purposes were placed on a permit basis. The general purpose of this order was to provide machinery for rationing edible oils and fats used for manufacture or other trade purposes.

On June 28 manufacturers of margarine or cooking fat were required to place all their stocks of margarine and cooking fat at the disposal of the Ministry of Food. The manufacturers agreed to pool their resources and to give up their brand names for the duration of the war. These orders and agreements were intended to enable the entire industry to operate as one company under the name Marcom Limited, distributing two qualities of margarine for household use and several grades of margarine and cooking fats for commercial purposes.

Combined rationing of butter and margarine was inaugurated on July 22, 1940, as a step toward relieving the pressure of demand and setting up a comprehensive control over use of margarine, as well as butter. Consumers could take their entire rations in butter. There have been a number of later changes in the margarine and butter rations. Under the option of taking their rations in butter or margarine, a large number of consumers took their allotments in butter. This increased the demand for butter to unwarranted levels and resulted in an order of August 29, 1940, reducing the amount obtainable under the combined butter-margarine ration from 6 to 4 ounces per person per week. On January 12, 1942, the combined fat ration was reduced to 8 ounces per week, and consisted of 2 ounces of cooking fat and 6 ounces of butter and margarine, of which not more than 2 ounces could be taken in butter.

CONSUMER PRICE CONTROL

With the exception of certain subsidies and price-fixing agreements affecting a few commodities, prices of agricultural products in the United Kingdom were not subjected to governmental control in the period prior to the beginning of the war. The necessary legislation was passed at the beginning of the war to enable the Ministry of Food to use the instrument of price control in the matter of maintaining the supply of essential commodities to consumers and of making provision for those members of the community that would be most hit by the rise of prices.

Specific authority to control prices was given to the appropriate Minister or authority by the Emergency Defence Regulations of August 25, 1939. The competent authority is given power *(22, No. 55, p. 41)* to regulate the production, distribution, disposal, and use of commodities of any description, and to control "the prices at which such articles may be sold," so far as it appears to that authority "to be necessary in the interests of the defence of the realm or the efficient prosecution of the war, or for maintaining supplies and services essential to the life of the community."

Separate provisional regulations were issued during the first week in September 1939 by the Board of Trade with respect to a number of essential commodities. These orders prohibited dealings in the specified commodities at any price exceeding the price current during the period of 7 days ended August 26 and prohibited the wholesale and retail sale of these commodities in excess of the maximum fixed by the order.

Within a few weeks conditions necessitated a new series of orders superseding the ones issued during the first 10 days of the war. Shipping delays and increased charges for ocean transport and insurance added to the costs of imported commodities. Consequently, on September 23 it was necessary to provide an all-round increase of 1d. per pound on the price of sugar.

Domestic conditions were such, also, as to affect the prices. Wartime alterations in the transport system, for example, resulted in the transfer of a large part of the

potato shipments from trucks to rail. Consumer demand for certain commodities, such as butter, became very heavy in September, after maximum prices had been placed in effect but before any rationing scheme had been made operative.

During the last quarter of 1939 and the year 1940 the control over food prices was extended by separate order to additional commodities until a large number of the staple products were covered. An order was issued January 8, 1941, by the Ministry of Food that fixed prices of all foods not already controlled at the price prevailing on December 2, 1940. The foods listed by this order included coffee, chicory, cocoa, cocoa butter, chocolate for use as a beverage, canned and bottled vegetables, canned pork and beans, meat pastes, meat extracts, dead poultry, tapioca, macaroni and spaghetti, soups, pickles, sauces, jellies, and edible nuts.

Control of Prices at Respective Stages

Some 50 food commodities were listed on February 7, 1941, as subject to maximum price-control orders at one or more stages. The stages at which the maximum sales price is fixed include sale by growers, sale by importers, sale by the Government, sale by wholesalers, and sale by retailers. There is a tendency toward control of sales at the earlier stages, e.g., sale by growers or first-hand sale after landing in the United Kingdom by the importer. Some commodities are controlled at three or more stages, eggs, tea, turkeys, coffee, canned vegetables, meats, and a number of other commodities being controlled at each sale.[17] No person shall sell or buy a specified commodity at any price exceeding the "appropriate price" fixed in the schedules for different varieties and types of the commodity.

Licensing of Dealers

Sales may be made only to and by licensed operators and at the fixed prices in instances of scarcity or especially important commodities. Thus-

> except under and in accordance with the terms of a licence granted by or on behalf of the Minister [of Food] no person shall sell or agree to sell or offer or expose for sale or buy or agree or offer to buy any apples at a price exceeding the maximum price for apples of the group under which such apples are classified in the first schedule of this order * * *.

Flexible Price Control

Changes are made in the base price because of increase in the cost of freight and raw materials without any change in the maximum margins; or changes may be made in the margins without any change being made in the base price. A flexible price policy is thus being followed by the Government with respect to those commodities that are available in variable quantities. Brand or manufacturers' prices controlled by the trade were allowed to remain free as long as possible, but gradually these prices also have been brought under control.

[17] Compare British policy in 1917 as stated by Lord Rhondda in Beveridge *(3, p. 56)*: "My policy, broadly stated, is to fix the prices of those articles of prime necessity over the supply of which I can obtain effective control, at all stages from the producer down to the retailer."

Imported Commodities

Prices are also fixed on imports. By the Import, Export and Customs Powers (Defence) Act of September 1, 1939, the Board of Trade is authorized to make such provisions as it thinks expedient for prohibiting or regulating the importation into, or exportation from, the United Kingdom of goods of any description.

An appropriate price is reached on the basis of delivery at the United Kingdom port, c.i.f. plus other costs. For a few commodities, maximum prices on the sale of imported products at wholesale or retail may vary according to the origin of the product. For some commodities produced outside of England, the maximum price shall be the f.o.b. price at the port from which the commodity is shipped. Maximum wholesale and retail prices have been fixed in some cases in which the Government is the sole importer. In some cases the orders fixing the maximum wholesale prices have been revoked on the ground that they were unnecessary after the Government became the sole importer and was in a position to exercise direct control over resale prices. The basis for the retail prices for bacon and butter, for example, is the Ministry's selling price.

Extension of the Government's fixed price to purchases abroad is attempted for a few products. Thus, no importer shall buy or offer to buy any honey from the Dominions or certain British territories at any price exceeding that specified in the Honey Maximum Price Order. Licenses are also required for imports of a number of important commodities in order to enable the Ministry of Food better to regulate the prices of the commodities. Since the Ministry of Food a year after the war started was buying 90 percent of the food imports of the United Kingdom, the price policy of the Ministry may have an effect upon prices of export surpluses in countries from which the commodities are purchased.

DEVELOPMENTS IN METHOD OF FOOD RATIONING[18]

Only four commodities were officially rationed to consumers when rationing was inaugurated in January 1940. These were bacon, ham, butter, and sugar. Tea, pork, certain other meats, and margarine were added to the list during the year; cheese, preserves, and cooking fats were added in 1941.[19] Individual retailers devised unofficial restrictions upon sales of unrationed articles that were not available in adequate quantity to meet the demand. Retailers often limited the quantity that could be bought at one time and restricted the sales to customers registered with them for rationed goods.

Points Rationing Scheme

In May 1941 the Ministry of Food announced that it would introduce, experimentally, a group-rationing system of certain miscellaneous commodities that would give the consumer some choice within a group of articles, no one of which existed in adequate quantity to meet demand. This scheme covered jam, preserves, and certain other

[18] For more detailed account of rationing in the United Kingdom, see Richter *(29, 30)*.

[19] MURRAY, ALTON T. FOOD RATIONING IN THE UNITED KINGDOM. U. S. Cons. Rpt. 337, 18 pp. Apr. 18, 1941. [Typewritten.]

bread spreads, and is still in operation. Another group-rationing system, which soon became known as the points rationing scheme, was introduced on December 1, 1941, for canned meats, canned fish, and canned beans from the United States. Coupons totaling 16 points were allowed for each successive 4-week period. The number of points necessary to procure the items were 16 for 1 pound of canned meat, 12 for 1 pound of canned fish, and 4 for 1 can of beans.

In February 1942 canned fruit, canned tomatoes, and canned peas were added to the points rationing scheme. Dried fruits, dried peas, lentils, dried beans, and rice were included in the points rationing scheme on January 26, 1942. Condensed milk and cereal breakfast foods were placed on a points rationing basis on April 6, 1942. A system for rationing candies, which will operate on the same lines as points rationing but separate from it, will become operative on July 27.

The points scheme has been an effective and equitable method of distributing groups of articles that do not exist in sufficient quantities to be rationed separately. The scheme has eliminated the retailers' problems of unofficially rationing these articles and has aided people who have little time for shopping. To bring any new item into the points scheme has meant, however, an immense amount of preliminary work in order to accumulate adequate supplies and to distribute them over the country so that they will be available in every town and village when the scheme begins to operate *(9)*.

Differential Rationing for Heavy Workers

In addition to the regular rations allowed weekly for each person, the Ministry of Food has developed a program of supplementary rations for the benefit of certain classes. People doing heavy work, it is recognized, may need more meat, cheese, or fish than other workers. Canteens, lunch rooms, or similar facilities have been established to provide the supplementary rations.

In the fall of 1941, the Ministry of Food indicated that industrial workers would be broadly classified according to needs and that food would be provided them through noonday canteen lunches. There are 5,500 canteens serving a substantial meal daily for employees in factories and mines. Over 80 percent of the mine workers have canteen facilities.[20] Canteens receiving double rations for heavy workers are serving 15 million meals weekly; canteens receiving 150-percent rations are serving 28 million meals weekly. "This means," said Major Lloyd George *(9, p. 540)*, "that workers at their work are consuming between 6,000,000 and 7,000,000 meals a day."[21]

Consumer Supplies in Air Raids

A Director of Communal Feeding was appointed by the Ministry of Food to provide adequate facilities for feeding the population in any area suffering from air raids. Plans were made for the coordination of private and public feeding facilities. The first step in carrying out these plans was a census of the feeding capacity of all restaurants and catering establishments in the United Kingdom. While the census was

[20] This figure is expected soon to reach 95 percent.

[21] Supplementary or priority allowances of the appropriate foods are made available to persons suffering from such diseases as diabetes, active tuberculosis, nephritis, and typhoid fever *(17)*.

under way, the plans for the creation of public eating places, soon designated as British Restaurants, were going forward. The plans called for the creation of more than 200 feeding centers in London alone, and within a year after the beginning of the war 58 of these centers had been opened. It was reported on March 3, 1942, that there were 1,320 British Restaurants, serving a total of 350,000 meals daily *(9, pp. 540-541)*.

Truck caravans, with special facilities for handling emergency feeding, which can operate in an area that has no water or cooking facilities, provide the first line of food defense in case of attack. The next line is the emergency feeding centers and the British Restaurants. The country has been divided into 100 areas for distribution purposes. Each area contains sufficient food to feed its population, independent of outside assistance, for several weeks. Cooking depots have also been constructed that can supply the canteens or special trucks.

Social Aspects of Rationing

The Food Ministry's policy of keeping consumer prices within the reach of all classes of people and of free distribution of milk to children, mothers, and expectant mothers who are unable to pay for it indicates an interest in the social aspects of rationing. Other significant examples of this interest are the Ministry's policies with respect to the distribution of foods containing essential vitamins and the promotion of the school-lunch program.

The policy of the Ministry of Food with respect to the vitamin content of foods for general distribution has been to keep a careful watch on the vitamin content of different foods and to supply the vitamins in the form of natural foods insofar as possible rather than to encourage the public to supplement its diet with tablets or capsules. In case of substitute foods, vitamins have been added to bring their amount up to the standard of the foods for which they have been substituted.[22]

Oranges have been allocated by district in rotation, with children given the first rations when supplies have not warranted general distribution. Retailers were required upon receipt of supplies to restrict orange sales for 5 days to holders of child ration books. Distribution of free fruit-juice concentrate and cod-liver oil for infants was begun in December 1941 and, as mentioned above, these commodities may be obtained on the free-milk permits.

Though the Ministry is making a special effort to prevent children from suffering from restrictions upon the food supplies, only about 650,000 children were receiving meals at school in Great Britain as of March 3, 1942. About 3,500,000 children, on the other hand, were receiving milk at school in addition to priority supplies at home. Lack of funds and equipment have been obstacles in the way of providing noonday meals for school children. These may be overcome by arrangements being made toward the end of last year. The Exchequer grant toward covering the loss formerly incurred by local authorities was raised to a minimum of 70 percent with a maximum of 95 percent. The Ministry of Food also has decided to make the facilities of its food depots available to local authorities for supplying meals in schools *(11, p. 351; 6)*.

[22] Statement of J. C. Drummond, Scientific Adviser to the Ministry of Food *(16)*.

Education and Enforcement

The educational program of the Ministry of Food has had three main purposes; namely, the encouragement of better home cooking that the best possible use may be made of the available ration, the protection of food supplies from bombs, gas, etc., and the explanation of the purpose and problems of wartime food distribution so that people may be willing to abide by the Ministry's regulations.

Food-advice centers have been set up to enable the Ministry through skilled demonstrators to get in touch with housewives all over the country. The centers are equipped with demonstration kitchens and have been planned to make it easy and pleasant for women to visit them. The advisers give instructions to women on how to make the best use of available foods for the health of their families. Special attention is given to the use of home-grown vegetables. To reach women who because of distance or expense cannot come to the food centers, classes and demonstrations are arranged, as, for example, near the homes of the miners in the Welsh valleys.

The Board of Education, the Ministry of Food, the Ministry of Health, and various women's organizations are working closely together to promote more economical and more nutritious home cooking. In order to improve the low standard of cooking existing among certain elements of the population, local food authorities are taking empty shops to demonstrate modern cooking methods. Housewives' clubs have been organized and a campaign by the schools has been undertaken to stimulate interest in better cooking.

The Ministry has carried on a continuous campaign to keep people informed on the necessary precautions to be used in protection of food from the incidence of the war. Information has been compiled in the form of booklets that give concise accounts of simple protective measures that should be followed in the protection of different types of foods. The booklets tell how to protect food in the shop, in the home, and on the farm. Persons are also advised on the method of identifying and dealing with contaminated water and foodstuffs.

Besides the educational program, the Ministry of Food has two other modes of implementing its regulations. It has regular law-enforcement procedures, which have been criticized because of the leniency of the penalties assessed. By virtue of an order issued September 21, 1939, and subsequent orders, the Ministry has its own facilities for exercising sanctions. The food-control committees are endowed with the power of enforcing orders of the Ministry, and over 800 inspectors are employed by the Ministry in the enforcement of its orders. An effective mode of handling dealers found violating the regulations has been the withdrawal of their licenses to operate.

Measures have been taken by the Government within the last few months to strengthen the ration controls. These steps include further extension of the points scheme to miscellaneous articles; strict limitations upon serving nonrationed foods in restaurants and hotels; reductions in quantities of food that a person, household, restaurant, catering establishment, or institution may have in its possession; increased penalties for violation of rationing regulations; and simplification of the rationing books. New ration books to be issued to the public in July 1942 are designed particularly to simplify the matter of rationing for the consumer. Advance copies of the new books embody a number of suggestions made by the public for simplification. Thus there will be only one book instead of separate books for different commodities,

and many foodstuffs will be grouped together, such as butter, margarine, and cooking fats, and sugar and preserves.

CONCLUSION

The Ministry of Food in the United Kingdom, it may be noted in conclusion, is an organization for the equitable rationing of available supplies of goods among consumers, but it is also vastly more than this. It performs the equally important functions of obtaining the supplies, making the supplies available at prices within the reach of consumers, and overcoming other obstacles to distribution. The normal agencies are called upon to produce and process the commodities needed, and the normal channels of distribution are utilized to effect distribution - yet the Ministry of Food uses its authority to direct production and distribution in the public interest.

There is no way at this time of saying which features of the British wartime food administration may likely be retained after peace comes. Many emergency regulations, of course, may be expected to pass out of existence. Whether or not any of the machinery of the Food Ministry is retained after the war, however, certain of the wartime food-distribution experiences will undoubtedly be useful in other countries as well as in the United Kingdom in the solution of post-war and normal peacetime problems. Experience, for example, in estimating certain minimum nutritional needs and improving nutritional standards among certain classes will add immeasurably to the information collected by the League of Nations on measures taken "to bring about an improvement in the nutrition in various sections of the population"*(24, p. 69)*.[23]

The technique with which the Ministry of Food makes arrangements in advance for purchasing the entire crops of domestic producers and Empire producers and certain quantities from producers in other countries might, if based on requirements to meet higher nutritional standards, be utilized in planning expansion of post-war consumption to absorb greater quantities of agricultural products. Nutritional programs might thus well be made the basis in the post-war period for assurance against the sharp price fluctuations of food crops.

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VENEZUELA'S AGRICULTURAL PROBLEM . . . . .

Kathryn H. Wylie*

Venezuela is rich in agricultural, mineral, and forest resources. Its major problem is to use them to build a strong economy. Venezuela particularly needs to increase the production of foodstuffs and so raise the standard of living of its people. Although there are many good agricultural and grazing lands, about 40 percent of the farmers live on steep hillsides where the forest cover has been removed, water has washed away the topsoil, and many centuries of cultivation have exhausted the land. The petroleum industry is the dominant influence in the economy, representing 31 percent of the country's wealth. Although it is foreign-owned, taxes on petroleum exports subsidize agriculture and pay most of the costs of government. A high tariff has not stimulated food production but merely increased the price of necessary commodities, and the high exchange value of the currency helps make living costs in Venezuela higher than in any other Latin American country. The Government is anxious to develop and carry through an agricultural program that will help its people to greater health and security, but it needs technical assistance to draw the blueprints and start the work.

THE BACKGROUND

Physical Characteristics

Geography

Venezuela is a triangular-shaped country on the north coast of South America. The Caribbean Sea borders it on the north, Colombia on the west, British Guiana on the east, and the point of the triangle juts down into Brazil. The country is one and a third times the size of Texas, with an area of 352,000 square miles. The mountains divide it into at least four major natural regions: The Maracaibo Basin around Lake Maracaibo in the northwest; the northern highlands, a continuation of the Andean range that breaks off near Puerto Cabello to form a northern coastal range; the Guiana Highlands in the south and east; and the llanos, 130,000 square miles of plains between the two highland areas.

* Office of Foreign Agricultural Relations. The last section, Government Policies and Plans, was written in collaboration with William A. Wickline, also of the Office of Foreign Agricultural Relations.

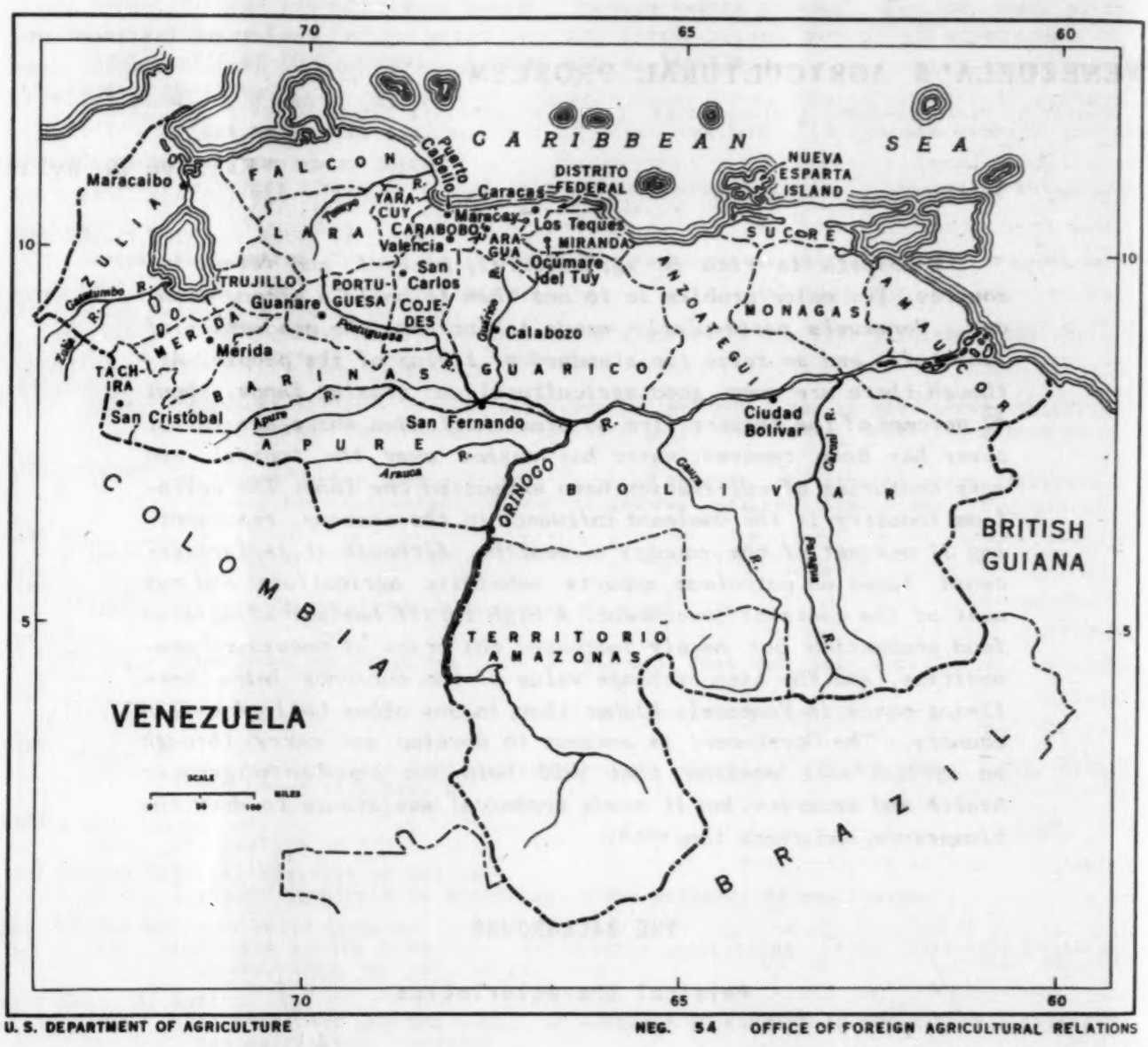

FIGURE 1.—Principal cities and administrative divisions of Venezuela.

The lowlands of the Maracaibo Lake Basin are drained by numerous rivers, some of which furnish transportation from the lake through the adjacent lowland country. The most important of these rivers are the Catatumbo and its tributary, the Zulia. Several rivers cut deep valleys in the highlands; the Aragua flowing into Lake Valencia and the Túy flowing east to join the Guaire and then on into the Gulf of Barcelona drain the richest agricultural districts in all Venezuela.

The Orinoco, the third largest river in South America, flows northeastward between the llanos and the Guiana Highlands, from Colombia to the east coast. It is 1,000 miles long and together with its important tributaries, the Apure and the Guaviare, provides the only transportation to much of the interior of Venezuela and Colombia. See figure 1.

Climate and rainfall

Venezuela is in the Torrid Zone, but the temperature varies with elevation. Mérida in the mountainous northwest section, for example, has an average annual temperature of 65° F.; Caracas, in the mountainous north-central area, 68°; Ciudad Bolívar, in the Orinoco Valley, 81°; and Maracaibo in the low lake-plain region, 82°. There is very little monthly variation in temperature, the average range not exceeding 2 or 3 degrees. The coastal plains, the Maracaibo Lake Basin, and the llanos have less than 2,000 feet elevation with average annual temperatures exceeding 77° F. and ranging from 68° to 95°. The climate is temperate from 2,000 to 6,500 feet, average annual temperatures ranging from 50° to 75°, depending on the elevation. Above 6,500 feet the climate is cold, with an average annual temperature of less than 50°.

Rainfall varies greatly from one location to another and is poorly distributed throughout the year in many places, making agricultural production difficult. Seasonal rainfall patterns at different stations are shown in figure 2.

North of Lake Maracaibo and on the northern coast along the Caribbean are dry regions receiving almost no rain. Rainfall averages 21 inches a year at Maracaibo City and increases to 50 inches in the southern lake basin. The llanos receive 30 to 60 inches of rain from April to October and are frequently inundated. During the rest of the year they are hot and dry, the vegetation becoming harsh and unnutritious and the streams drying up.

There is ample rain in the Sierra Nevada de Merida to the west - from 40 to 75 inches a year. East of this region the Segovia Highlands are arid, with less than 30 inches of rain in the rainy season from September to May. Rainfall on the coastal ranges averages 40 to 50 inches a year. The Guiana Highlands receive 40 inches of rainfall in the west, with precipitation increasing to 80 on the east coast.

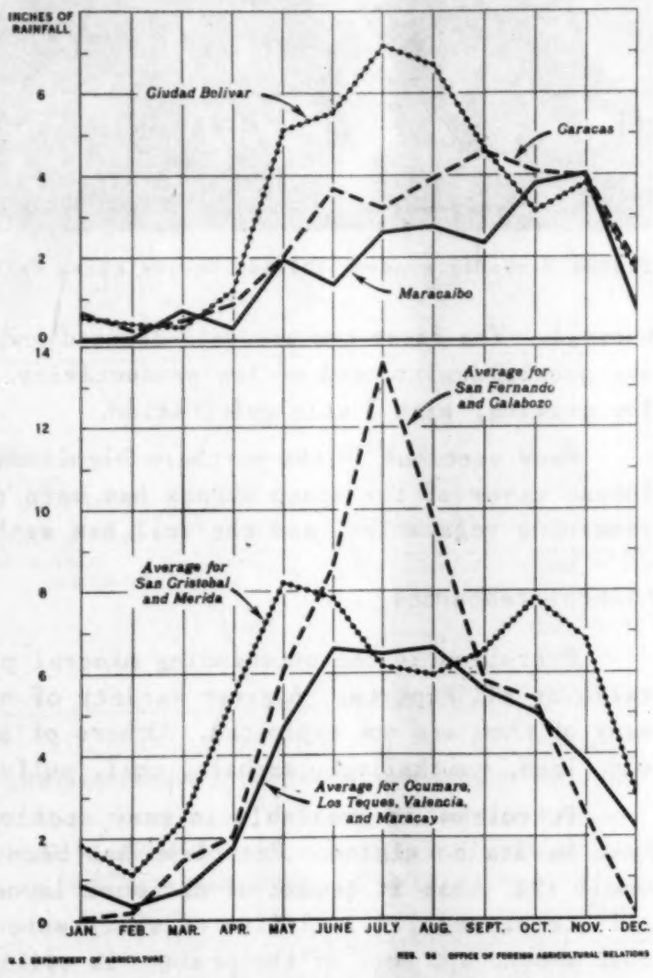

FIGURE 2.- Average monthly distribution of rainfall at several Venezuelan stations, selected years.

Soils

The dry, sandy soils north and northeast of Lake Maracaibo are not generally suitable for cultivation. Cacti vegetation predominates, although divi-divi and acacias are found in the scant forests. Along the stream courses of this general region occur some narrow

strips of productive alluvial soil suitable for rice, sugarcane, bananas, and corn. Many areas, however, have poor drainage.

The western highlands have a variety of soils, generally of silty clay loam texture and well-drained. Under the more humid conditions coffee is successfully grown on many of the larger holdings, often on very steep land. Erosion and long use of the land without fertilizer or rotation have severely reduced the yields of corn, plantains, and other crops on most of the steep mountain slopes. Grass grows well generally. Some of the highlands are sparsely vegetated, especially in lower rainfall areas.

FIGURE 3.—Badly eroded hillside in the Chama Valley, Mérida.

The clay loam and dark brown soils of the Valencia Lake Basin furnish the best agricultural land in the country, followed closely by the fertile Caracas Valley. The deep alluvial land, as well as some of the red clay on the lower gentler slopes of the Túy Valley, are good for cacao, corn, and sugarcane.

Most of the llanos are nearly level plains of water-laid material. The predominant soils are sandy loams and clay loams, with red, yellow, and whitish subsoil. The first two are well-drained and of good productivity. The whitish soils are poorly drained and of low productivity. The country is used almost exclusively for grazing, with little cultivation.

Many sections in the northern highlands are badly eroded (fig. 3). Much of the forest cover of the steep slopes has been removed, numerous goats have cropped the remaining vegetation, and the soil has washed away, leaving many barren hillsides.

Mineral resources

Petroleum is the outstanding mineral product, accounting for 80 percent of the value of all exports. A great variety of minerals is found in Venezuela, although many of them are not exploited. Others of importance are gold, silver, copper, iron, tin, lead, quicksilver, asphalt, coal, sulfur, and precious stones.

Petroleum is available in many sections, but the commercial wells are in the Lake Maracaibo region. Petroleum has been produced for many years, but it was not until 1927 that it became of national importance. In that year production was 1.3 million barrels, 1.2 million of which were exported. Production is now four times that amount and most of the product is still exported. Though oil is largely exploited by foreign capital and profits from its sale go to outsiders, the Venezuelan Government collects heavy taxes from the industry. Because of these funds the financial position of the country is excellent, and there is no burden of foreign debt.

Forest resources

Forest products of importance are tonka beans, divi-divi, balata, mahogany, and barbasco. Forests cover about half the total area, but little timber has been exploited. In the northern highlands much of the original forest has been removed, but there is much virgin timber south of the Orinoco River. The natives gather tanning materials, nuts, fruits, and some rubber and float them down the rivers to market.

Of the 1939 forest exports, valued at approximately $400,000, tonka beans accounted for 40 percent, wood for 33, balata for 13, barbasco for 8, chicle for 4, and divi-divi for 1 percent.

Economic and Political Characteristics

Columbus touched the mainland of Venezuela at the delta of the Orinoco River on his third voyage to the New World in 1498. Amerigo Vespucci called the land Venezuela, or Little Venice, because the natives built their homes on piles in Lake Maracaibo *(5)*.[1] Colonization was slow, and Spanish trade restrictions hindered the development of the country. There was much dissatisfaction with Spanish colonial policy, and Venezuela was the first colony to try for freedom. Early attempts to form an independent nation were not successful, but Bolívar led his armies to victory in 1821 and Venezuela became an independent republic in 1830. Since 1935 many progressive measures, including a liberal constitution, have been adopted.

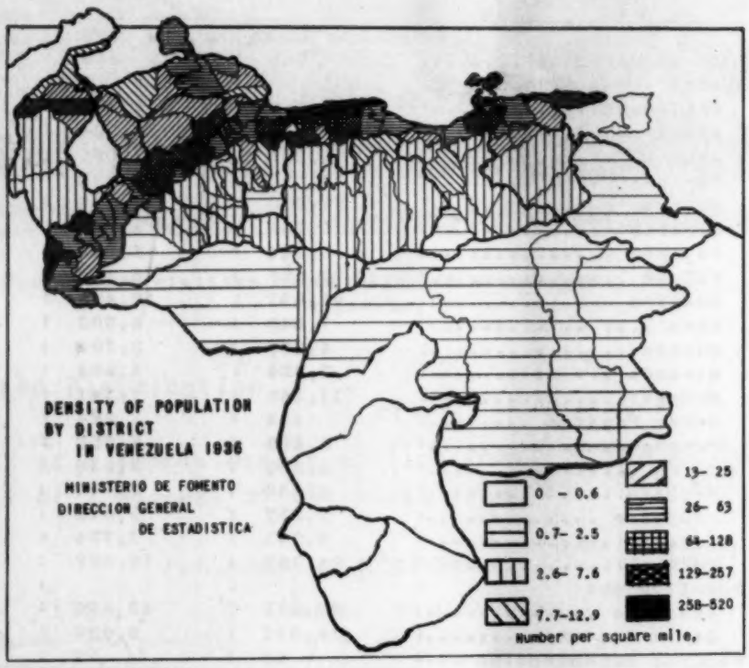

FIGURE 4.—Distribution of population in Venezuela, 1936.

The population of 3.5 million is concentrated largely in the northern highlands (fig. 4). The Federal District, the adjoining State of Carabobo on the north coast, and the island of Nueva Esparta, having together only eight-tenths of 1 percent of the area, contain 15 percent of the total population. Only 3 percent of the population are Indians, although 80 percent are mestizos (people of mixed blood). Indians, however, make up 96 percent of the population of Amazonas in the south, 31 percent in Delta Amacuro in the east, and 18 percent in Bolívar and Apure. Negroes are numerous in the hot coastal area around Lake Maracaibo. There has been very little immigration, and population has increased slowly. Caracas, the capital, is the largest city, with 200,000 people. The only other city of more than 100,000 is Maracaibo.

[1] Italic numbers in parentheses refer to Literature Cited, p. 253.

The 1936 census for the Federal District and nine States showed that 64 percent of the people over 12 years old could neither read nor write. For the country as a whole, illiteracy estimates ran as high as 90 percent. In 1938, however, the 4,000 primary schools with 6,000 teachers had an enrollment of 234,000 pupils, although the attendance averaged only 154,000. There were 11 normal schools, 51 colleges, and 3 universities, with 692, 3,497, and 2,166 students, respectively. Urban primary, secondary, and advanced educational facilities are centralized under the Federal Government, and school attendance is compulsory between the ages of 7 and 14. Rural education is handled by welfare institutions or pedagogical missions, which include some instruction in sanitation. Public health is a pressing problem, but the Ministry of Health and Social Welfare is making progress in the fields of malaria, tuberculosis, and venereal-disease control, maternal and child welfare, and health education.

The administrative divisions of the country include 20 States, the Federal District, two Federal Territories, and several small islands administered as Federal dependencies (table 1).

TABLE 1.—*Area and population of Venezuela, 1936*

ADMINISTRATIVE DIVISIONS	AREA		POPULATION	DENSITY PER SQUARE MILE	PERCENTAGE INDIANS ARE OF TOTAL
	Square miles	*1,000 acres*	*Number*	*Number*	*Percent*
Federal District	745	477	283,418	380.4	-
States:					
Anzoátegui	16,718	10,700	136,573	8.2	4.5
Apure	29,537	18,904	71,271	2.4	18.5
Aragua	2,162	1,384	129,746	60.0	-
Barinas[1]	13,591	8,698	56,193	4.1	-
Bolívar	91,893	58,813	101,084	1.1	17.7
Carabobo	1,795	1,149	172,127	95.9	-
Cojedes	5,714	3,657	48,091	8.4	-
Falcón	9,575	6,128	215,140	22.5	-
Guárico	25,637	16,408	120,420	4.7	-
Lara	7,645	4,893	291,230	38.1	-
Mérida	4,363	2,792	179,122	41.1	-
Miranda	3,069	1,964	216,527	70.6	-
Monagas	11,158	7,141	93,805	8.4	1.0
Nueva Esparta	444	284	73,375	165.3	-
Portuguesa	5,869	3,756	71,675	12.2	-
Sucre	4,556	2,916	263,744	57.9	0.5
Táchira	4,286	2,743	216,387	50.5	-
Trujillo	2,857	1,828	242,605	84.9	-
Yaracuy	2,741	1,754	123,964	45.2	-
Zulia	24,363	15,592	290,896	11.9	5.3
Territories:					
Amazonas	67,858	43,429	41,165	0.6	95.8
Delta Amacuro	15,521	9,933	28,536	1.9	31.2
Federal dependencies	46	29	345	7.5	-
Total or average	352,143	225,372	3,467,839	9.8	3.0

[1] Formerly Zamora.

[Venezuela] Ministerio de Fomento *(11)*.

There are about 600 miles of railway between the highland cities and the port towns, about 2,000 miles of surfaced highway, and 3,500 miles of other roads, concentrated largely in the coast and northern-highland regions. The Transandean Highway is the most important road. There were 22,000 motor vehicles registered in 1938, 8,500 of them in the Federal District. Of the total, 12,800 were passenger automobiles. The Orinoco River is the only highway to the llanos and Guiana Highlands.

Pack trains and mules are still the principal carriers for all interior regions. About 8,000 miles of telegraph lines and 600 miles of telephone lines served the country in 1938. A Venezuelan company and two foreign companies, including Pan American Airways, operate airplanes between the principal cities and provide service to foreign countries.

PRESENT STATUS OF AGRICULTURE AND TRADE

The economy of Venezuela is primarily agricultural, although agriculture is subsidized by the petroleum industry, which supplies the major revenue of the country. About three-fourths of those gainfully employed work on the land. The agricultural and livestock industries represent about 40 percent of the national wealth. Next to petroleum, coffee is the most valuable export. Good-quality cacao is produced for export, and corn and sugarcane are grown for local use. Scarcity of labor and machinery, poor land on many steep mountain slopes, and primitive methods of cultivation limit production, and much food has to be imported (fig. 5).

FIGURE 5.—Primitive cultivation in the Andes of Venezuela.

Land Distribution

Cultivated land was estimated at a little over a million acres in the early 1930's, representing only one-half of 1 percent of the total area *(7)*.

	Percentage of total area
Forests	53.0
Plains and cold region	44.5
Lakes, rivers, and urban areas	2.0
Cultivated land	.5
Total area	100.0

The 1937 agricultural census furnishes information on land in the major crops, by States *(13)*. Detailed reports for only 14 of the 22 States and Territories are available, and the general conclusions based on them represent only part of the picture. These 14 administrative divisions, with 55 percent of the total land area, have 1.6 million acres cultivated in the major crops, or 1.3 percent of their land area (fig. 6). Some of the crops are harvested twice a year from the same land, and the figures by crops may thus overestimate the cultivated area. Census data confirm

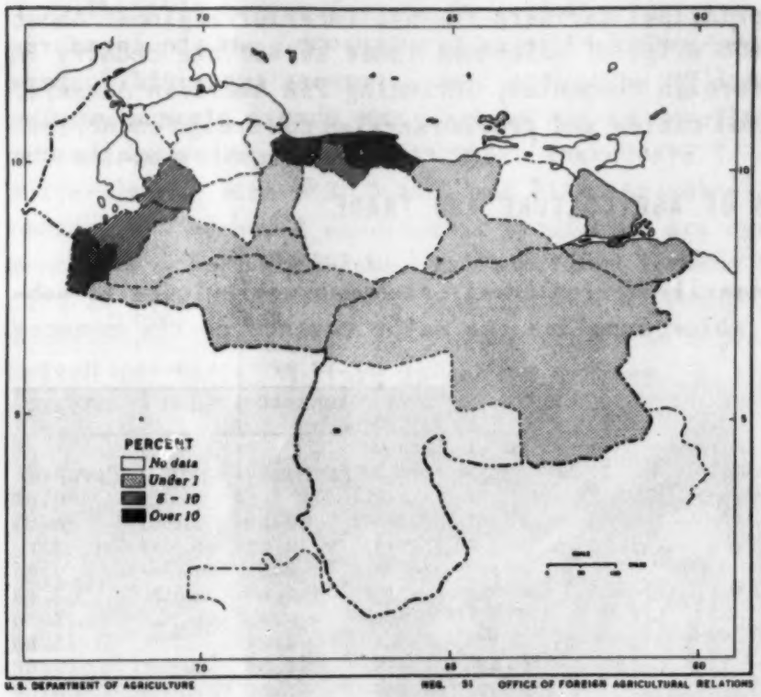

FIGURE 6.-Percentage of area cultivated in Venezuela, by administrative divisions.

the general assumption that most of the agriculture is centered in the northern highlands. Sixteen percent of the area is under cultivation in Miranda, for example, contrasted with 0.04 percent in Apure in the llanos.

Number and Size of Farms

In 1937 there were 218,496 farms, 24,067 of which were cattle ranches. Farms, excluding cattle ranches, averaged 45 acres in size in the 14 States and Territories for which detailed data are available, whereas the cattle ranches averaged more than 3,000 acres. Holdings in cattle areas of the llanos and the Guiana Highlands are large. In the northern highlands the average farm is much smaller (fig. 6).

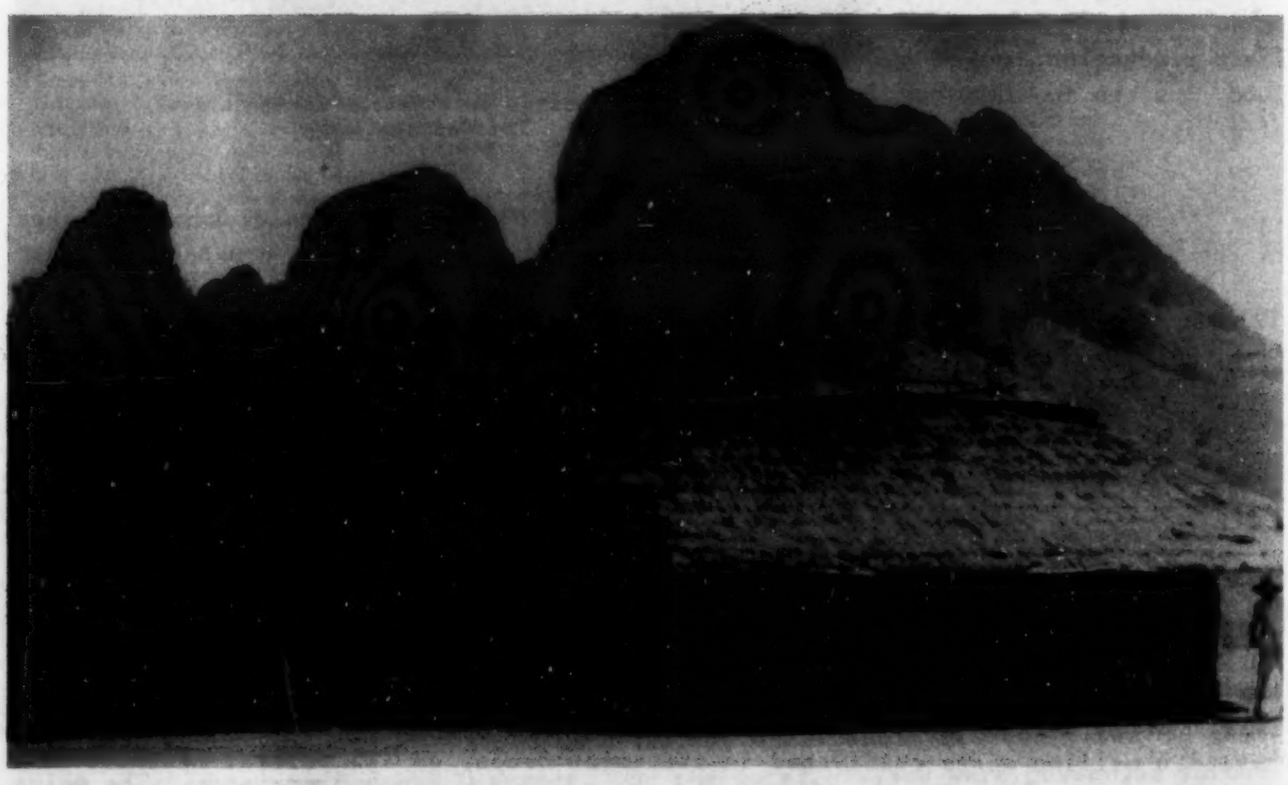

FIGURE 7.-Venezuelan farmhouse, State of Guárico.

Commercial production is limited chiefly to large plantations. On the farms reporting acreage in 13 administrative divisions, less than 1 percent contained 56 percent of the farm land, and 66 percent of the farms had less than 6 percent of the land. More than half the farms were between 2 and 25 acres in size, although in the llanos only one-fourth the farms fell in this size group (table 2).

TABLE 2.—*Classification of farms, by size of farm and by regions, 1937*[1]

SIZE GROUPS OF FARMS (ACRES)	NORTHERN HIGHLANDS		LLANOS		GUIANA HIGHLANDS		TOTAL	
	PERCENTAGE OF-		PERCENTAGE OF-		PERCENTAGE OF-		PERCENTAGE OF-	
	FARMS	ACREAGE	FARMS	ACREAGE	FARMS	ACREAGE	FARMS	ACREAGE
	Per-cent	*Percent*	*Per-cent*	*Percent*	*Per-cent*	*Percent*	*Per-cent*	*Percent*
Under 2.50	2.02	0.03	0.73	(2)	1.50	(2)	1.98	0.02
2.50 - 4.99	8.89	0.29	5.02	0.02	10.50	0.03	8.80	0.22
5.00 - 12.49	28.86	2.39	12.94	0.10	23.00	0.17	28.42	1.81
12.50 - 24.99	27.43	4.79	11.08	0.20	21.00	0.35	26.88	3.64
25.00 - 49.99	16.18	6.03	14.16	0.50	12.00	0.40	16.13	4.64
50.00 - 124.99	9.54	7.30	15.94	1.26	9.50	0.64	9.72	5.76
125.00 - 624.99	5.34	14.31	18.04	5.29	5.50	0.98	5.71	11.88
625.00 - 2,499.99	1.18	14.69	13.27	18.92	11.50	15.88	1.56	15.65
2,500.00 - 24,999.99	0.52	30.45	8.58	58.37	5.00	41.50	0.77	36.86
25,000 and over	0.04	19.72	0.24	15.34	0.50	40.05	0.03	19.52
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total number and acreage	43,143	4,031,362	1,236	1,156,764	200	196,210	44,519	5,384,336
Average acreage per farm	93.4		935.9		981.0		120.9	

[1] There are six States and the Federal District in the northern highlands, four States and one Territory in the llanos, and one State in the Guiana Highlands.

[2] Less than 0.005 percent.

Based on data from Censos Agricola y Pecuario 1937 *(13)*.

Land Tenure and Labor

Owner-operators were predominant in Venezuela in 1937, accounting for 39 percent of the agricultural holdings. Operators who paid a fixed fee to the owner were next in importance, representing almost one-fourth of the total, and operators living on private property but paying nothing for the use of the land accounted for almost one-fifth of the total (table 3). The government owns and operates a large acreage of good land. Part of it is grazing land and part irrigated land used largely for cane production.

The population of Venezuela is relatively small, and the labor supply is scarce. The oil wells have drawn labor from the farms until it is difficult to get enough men for harvesting and peak-load requirements. Wages in the oil industry are 10 to 12 bolívares ($3.00 to $3.60) a day compared with an average of 4 to 5 bolívares ($1.20 to $1.50) for the whole country.

Crop Pattern

Coffee and cacao are the only agricultural exports of any importance. The major food crops are corn, beans, yuca, sugar, plantains, bananas, wheat, and rice. For the entire country corn is the largest crop grown and sugar is perhaps the most valuable

TABLE 3.-*Tenure of agricultural property in 14 administrative divisions, 1937*

ADMINISTRATIVE DIVISION	FARMS	PROPIETARIO[1]	COLONO MEDIANERO[2]	COLONO ARRENDATARIO[3]	FUNDADOR[4]	ARRENDATARIO[5]	COLONO[6]
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Trujillo	11,685	10,192	1,134	222	93	38	6
Carabobo	10,136	1,009	123	6,390	5	49	2,560
Barinas	3,702	89	2	136	3,056	211	208
Nueva Esparta	129	124	-	1	1	3	-
Anzoátegui	7,591	545	-	1,511	2,671	36	2,828
Federal District	2,622	640	192	765	46	58	921
Mérida	13,900	9,687	1,530	666	1,040	151	826
Aragua	10,309	815	840	3,739	181	199	4,535
Bolívar	3,154	199	-	6	2,109	7	833
Delta Amacuro	2,562	-	-	-	-	-	2,562
Cojedes	3,701	332	3	2,600	50	258	458
Apure	599	35	-	82	216	119	147
Táchira	22,211	16,719	1,367	1,087	1,852	827	359
Miranda	18,460	2,897	81	9,185	1,180	118	4,999
Total above	110,761	43,283	5,272	26,390	12,500	2,074	21,242
Percentage of total	100.00	39.07	4.76	23.83	11.29	1.87	19.18

[1] Propietario - owner-operator.

[2] Colono-medianero - operator who gives owner part of his produce; sharecropper.

[3] Colono-arrendatario - operator who pays a fixed fee to the owner.

[4] Fundador - operators living on public or common property but paying nothing for the use of the land.

[5] Arrendatario - tenant who works under a written or verbal contract with the owner.

[6] Colono - operators living on private property but paying nothing for the use of the land.

Censos Agrícola y Pecuario 1937 *(13)*.

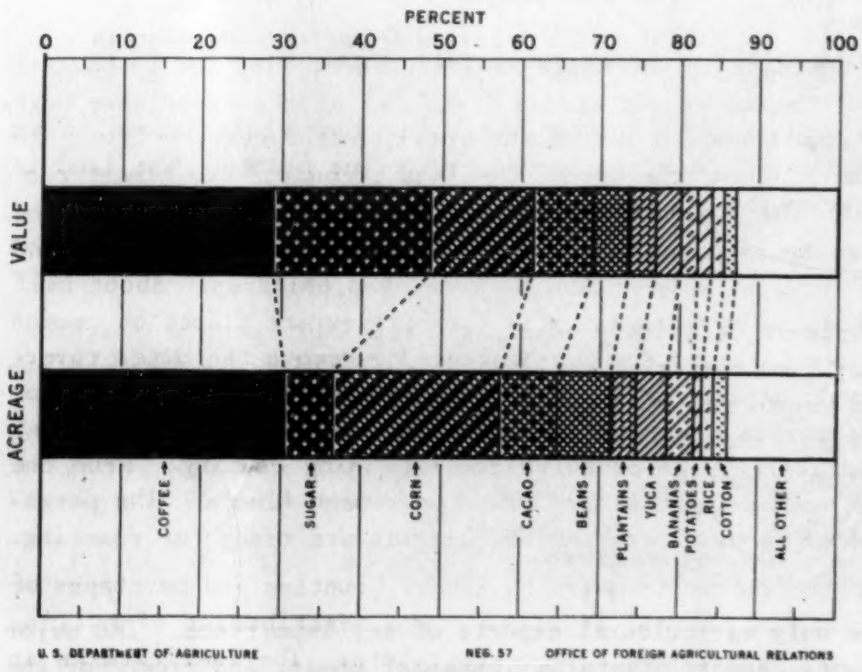

FIGURE 8.-Relative importance of major crops in selected Venezuelan States, 1937.

product, but these do not enter foreign trade. In the 14 States and Territories for which detailed census data are available, coffee is the most valuable crop and occupies more acreage than any other crop, including corn. Coffee trees were on almost one-third of the area cultivated in these 14 divisions in 1937, and coffee sales represented 30 percent of the total value of sales of agricultural products (fig. 8). Corn occupies about one-fifth the cultivated acreage, and other major food crops together about one-fourth.

Coffee

Coffee production amounts to about 150 million pounds a year, most of which is for export. The States of Táchira, Trujillo, and Mérida, in the northern highlands, produced almost half the total crop in 1936 (fig. 9). Farms in this area are small, the average area in coffee being less than 9 acres. The 13 coffee-producing States and Territories for which census figures are available and which produced almost 70 percent of the coffee in 1936 averaged more than 12 acres of coffee trees per farm. Some of the larger plantations, once the property of a former President, are now owned by the present Government. Others are held by the Banco Agrícola y Pecuario as a result of mortgage foreclosures. Very little coffee land is held by foreigners.

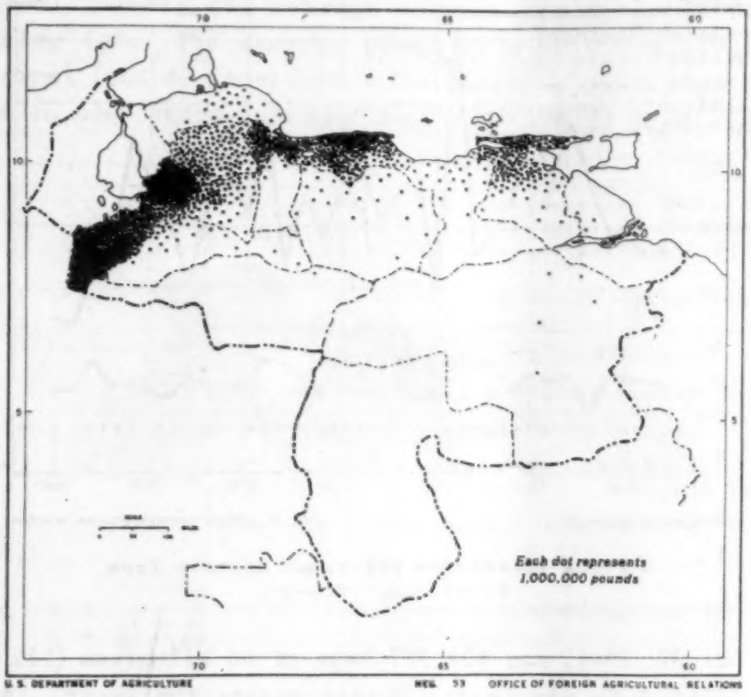

FIGURE 9.—Distribution of coffee production in Venezuela, 1936.

Coffee yields are low - the average for the country being only half a pound per tree - and the quality is not uniform. Methods of planting and cultivation are generally unsatisfactory. Many of the producing trees are between 50 and 60 years old and are located on badly eroded hillsides. The trees that are removed during the year are replaced about May 1 with volunteer plants rather than with carefully nurtured seedlings. Coffee trees are shaded from the sun by bananas or guama or bucare trees. These trees, through the decay of their leaves, also return to the soil phosphates, lime, and nitrogen for the coffee plants. The land is rarely irrigated, and the plantations are cleared of weeds only twice a year.

The coffee berries ripen from September in the lowlands through December and January on the mountains and are generally picked by women and children. About half the coffee is prepared as trillado (by dry process). The berries are placed on cement floors to dry in the sun and are then put through machines to remove the outer covering. Preparation of descerezado coffee (by wet process) requires more time and labor and is more expensive. The berries are put through a machine to remove the outer covering and then into fermenting vats to dissolve the remaining coating. From the vats the berries go through a washer and then are dried on cement floors. The pergamino, or inner coating, is removed by machinery and the berries are ready for roasting.

The Government has aided the coffee industry by export bounties and purchases of the crop, establishment of minimum prices, loans and free distribution of hulling machines, and establishment of the National Coffee Institute. The Institute is an association of growers, financed by the Government, to study diseases, production

methods, and markets, and to educate the growers. Most of the money spent by the Government on bounties has been for coffee, and most of the agricultural loans go to coffee growers. The export bounty of 7.05 cents per pound was discontinued in 1941 and a "coffee dollar" established. Holders of dollar exchange arising out of coffee exports are paid 4.60 bolívares to the dollar as against an official rate of 3.35 bolívares.

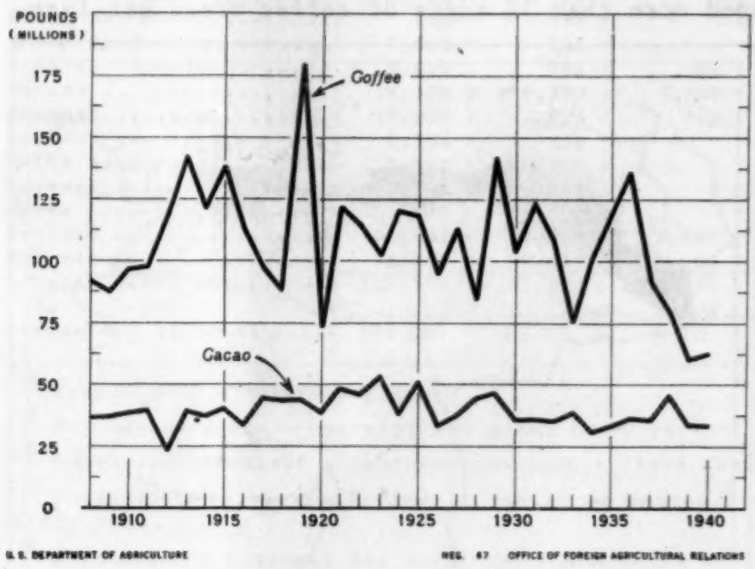

FIGURE 10.-Coffee and cacao exports from Venezuela, 1910-40.

Before petroleum production increased so rapidly in the middle 1920's, coffee exports made up from 40 to 60 percent of the value of all exports. They are still large in volume (fig. 10) but have been declining recently, both absolutely and relatively. Venezuela ranks fourth in world coffee production, furnishing about 3 percent of the total. About two-thirds of its coffee went to Europe before the war, largely to Germany. The United States is now the principal market. The Inter-American Coffee Agreement assures Venezuela of a share in the United States market. The quota for the year October 1, 1940, through September 30, 1941, was 438,757 bags of 60 kilograms (132 pounds), although 629,221 bags were shipped to the United States market that year. As a result of these overshipments, the current quota is reduced to 287,992 bags. Coffee for export is now under license, and quotas are assigned to institutions and local areas to keep the total from exceeding the quota set by the agreement.

Cacao

Cacao production of from 30 to 38 million pounds is also largely for export (fig. 10). The largest producing area is around Barlovento in the State of Miranda, although in 1936 Sucre and the Territory of Delta Amacuro each produced about one-fourth of the total crop (table 4). It is reported that plantations in Delta Amacuro are being abandoned because of the opening of new oil fields there.

Cacao acreage was 7.4 percent of the total cultivated in 14 States and Territories in major crops in 1937, and the value of sales was 7.6 percent of total agricultural sales. The average area cultivated per farm is about 16 acres, although in Miranda the average is nearer 20 acres. The quality of the Venezuelan product is good, but during the past few years low world prices have discouraged expansion of the industry.

Export bounties and financial assistance to the cacao producers' association have been the major aids to the cacao industry. An export bounty of 2.95 cents per

pound was in effect from January 1937 to 1941 when a "cacao dollar" was established. Growers have since received 4.30 bolívares to the dollar for all cacao exported. The association, which formerly provided statistical information, paid for market service and information in New York, and maintained two cacao experts to visit plantations, was dissolved on August 30, 1941.

Corn

Corn generally is grown on small plots, the average acreage per farm for 14 States and Territories in 1937 being 4.5. The average production of 6.5 million bushels usually furnishes the principal food of Venezuela. The tariff of more than a dollar[2] a bushel shuts out imports in most years. Almost half the crop is produced in the five States of Trujillo, Falcón, Lara, Portuguesa, and Miranda (fig. 11), although all the States produce some corn. At low elevations two crops a year are grown on the same acreage. Ninety-five percent of the corn is white dent and 5 percent is yellow dent and mixed corn. Cultivation methods are primitive in most areas, and yields are low, ranging from 11 bushels to the acre in Mérida to 36 in Nueva Esparta and averaging 20 bushels in Trujillo, the largest producer. Weevils and other insects multiply rapidly and destroy corn stored in sacks within 3 months' time. Two new steel elevators with a capacity of 75,000 bushels each were built in 1940, one near Caracas and the other at Acarigua, in Portuguesa, to protect the grain from insect damage. So far they are proving very effective for the small portion of the crop they can handle.

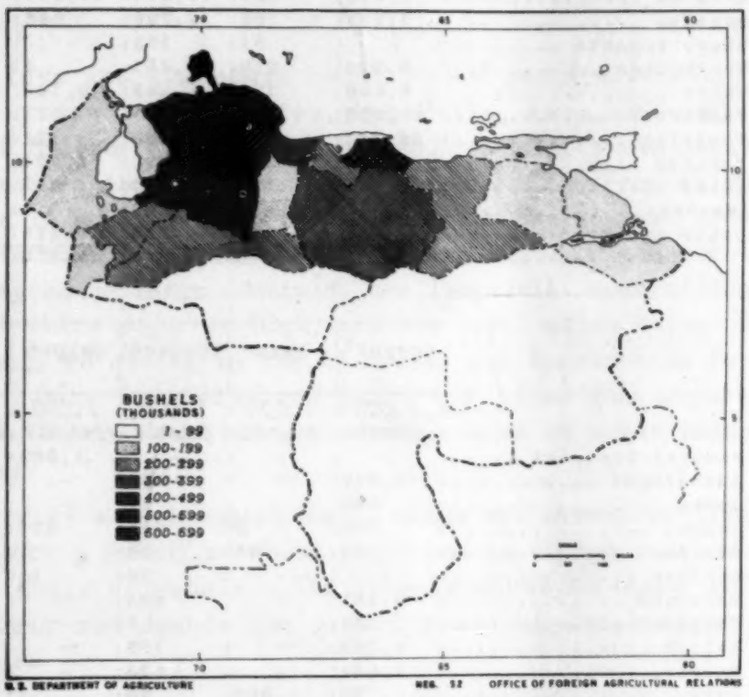

FIGURE 11.—Distribution of corn production in Venezuela, 1936-37.

Rice

Rice, another staple food, is produced in all but two States. The principal producers are Bolívar and Guárico, the two of them furnishing a third of the total production of 8.5 million pounds in 1936-37 (table 4). Estimated production for 1940 was from 9 to 11 million pounds and for 1941 from 13 to 18 million pounds. Rice is a small-farm crop in most districts, the average area cultivated being 2.8 acres.

It has been necessary to supplement domestic production by imports of two-thirds the rice consumed (table 5) over a tariff of 3.12 cents a pound. Before the war imports were largely from Thailand, but Brazil and Ecuador are now the chief suppliers.

[2] Tariff rates are converted from bolívares at the controlled exchange rate of 1 bolívar equals 29.85 cents.

TABLE 4.—*Production of major crops, by administrative divisions, 1936-37*

ADMINISTRATIVE DIVISION	COFFEE	CORN	SUGAR	CACAO	RICE	POTATOES	YUCA	BEANS	YAMS
	1,000 pounds	*1,000 bushels*	*Short tons*	*1,000 pounds*	*1,000 pounds*	*Bushels*	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*
Federal District	5,397	8	1,462	82	-	12,348	309	258	150
Anzoátegui	1,971	236	5,373	15	564	73	7,500	917	566
Apure	106	52	1,680	11	251	-	1,027	280	1
Aragua	6,385	274	5,078	3,587	130	13,815	152	3,245	679
Barinas	2,948	235	1,364	15	880	37	18,466	392	53
Bolívar	525	92	4,357	4	1,862	-	3,452	520	134
Carabobo	7,136	386	8,562	487	29	23,075	3,631	2,912	1,221
Cojedes	335	198	694	-	79	-	4,821	906	366
Falcón	2,529	637	5,655	7	110	37	639	2,697	168
Guárico	2,035	341	3,384	13	1,015	4	1,164	4,497	205
Lara	12,176	629	14,236	1	-	882	51	4,220	97
Mérida	20,481	202	6,275	353	71	98,658	7,220	1,285	1,105
Miranda	6,402	554	11,313	10,900	562	17,747	1,442	3,655	2,663
Monagas	6,265	185	2,723	655	112	672	2,313	1,166	4,744
Nueva Esparta	-	51	153	-	-	-	858	145	613
Portuguesa	5,922	618	1,181	1	60	-	1,455	1,594	31
Sucre	8,426	185	7,288	9,149	31	1,580	1,504	447	4,861
Táchira	23,876	169	11,045	271	545	21,899	21,042	2,241	1,442
Trujillo	22,747	688	11,068	121	786	64,191	6,638	4,384	99
Yaracuy	6,235	411	3,792	1,204	661	-	908	2,268	1,384
Zulia	20	132	15,712	527	659	-	5,004	150	55
Amazonas	-	2	150	-	4	-	648	3	18
Delta Amacuro	269	187	288	9,273	90	-	586	1	284
Total	142,186	6,472	122,833	36,676	8,501	255,216	90,630	38,183	21,239

	COTTON[1]	PEAS	TOBACCO	ONIONS	WHEAT	BARLEY	COCONUTS	PLANTAINS	BANANAS
	1,000 pounds	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*	*Bushels*	*Bushels*	*1,000 pieces*	*1,000 pieces*	*1,000 stems*
Federal District	-	-	-	1,352	-	-	2,417	817	54
Anzoátegui	2,277	-	196	-	-	-	1,110	3,458	353
Apure	569	-	7	-	-	-	-	566	1,252
Aragua	538	2	31	531	-	-	749	2,080	688
Barinas	161	84	18	1	-	-	-	15,827	1,151
Bolívar	-	-	29	11	-	-	26	5,985	18
Carabobo	3,457	-	454	-	-	-	5,514	1,512	250
Cojedes	152	-	1	-	-	-	-	846	81
Falcón	1,279	-	185	-	-	-	5,639	842	864
Guárico	1,504	-	194	-	-	-	-	3,856	773
Lara	90	386	20	1	6,371	[2] 42	206	39	198
Mérida	-	5,893	714	154	151,446	[3] 6,274	-	17,934	944
Miranda	-	4	-	101	-	-	721	4,804	303
Monagas	1,556	1	3,011	1	37	-	99	6,591	678
Nueva Esparta	22	-	2	-	-	-	851	2,086	1
Portuguesa	2,156	146	33	-	-	-	-	1,002	223
Sucre	75	-	1,259	46	-	-	6,223	1,458	458
Táchira	-	2,537	251	150	21,307	[4] 3,647	1	18,889	1,465
Trujillo	-	3,329	71	60	54,772	1,129	7	13,401	3,567
Yaracuy	258	-	564	101	-	-	-	15,746	1,599
Zulia	461	-	-	152	-	-	4,467	99,285	3,623
Amazonas	-	-	-	-	-	-	-	482	4
Delta Amacuro	-	-	64	-	-	-	586	17,949	1
Total	14,555	12,382	7,104	2,661	233,933	[5] 11,092	28,616	238,455	18,548

[1] Includes seed cotton.

[2] Includes 172 bushels of oats.

[3] Includes 569 bushels of oats.

[4] Includes 11 bushels of oats.

[5] Includes 752 bushels of oats.

Estadística Agropecuaria *(10)*.

TABLE 5.—*Imports of rice into Venezuela, 1932-40*

YEAR	IMPORTS	YEAR	IMPORTS
	1,000 pounds		*1,000 pounds*
1932	19,989	1936	28,166
1933	26,010	1937	26,829
1934	25,851	1938	29,176
1935	21,069	1939	48,250
		1940	30,955

The Government distributes free seed to encourage production, has established two experimental centers to produce selected seed of good quality and high yield, and has four large and four small rice mills for the use of farmers. Plans are made for extending loans to growers to purchase necessary equipment.

Sugar

The warm interior river valleys and the coast country are particularly well adapted to sugarcane. This crop grows in all States, but Zulia, Lara, Miranda, Trujillo, and Táchira produce about half of the total (table 4). Panela, brown sugar sold in cake form, is more important in the diet than white sugar. Cane from which this type of sugar is made is grown in small patches for local use. White-sugar production is concentrated in the State of Zulia, which produced more than half the total of that type in 1936-37. It is produced on large centrals, one large mill controlling half the total output. The price of white sugar is high, and the total sales value of sugar and its products is second only to coffee in the 14 States and Territories for which census data are available. Data for Zulia and Lara, the principal sugar-producing States, are not included. If they had been, the total value of sugar might have been higher than that of coffee.

The sugar industry is protected by a high import duty, which was raised in 1936 to 2 bolívares a kilogram (27.08 cents a pound) on white sugar and to 16 bolívares a kilogram ($2.17 a pound) on brown sugar or panela. The duty is equal to about 600 percent ad valorem on imported sugar and double the retail price of local sugar. Control boards fix the local price.

Other food crops

Yuca and beans, other important foods, grow in the northern highlands and the north-coast regions, and bananas and plantains grow in Zulia and on the north coast.

There is a protective duty of 1 bolívar per kilogram (13.5 cents a pound) on bananas and none are imported. The same duty applies to northern fresh fruit, and a duty of 16.25 cents a pound is imposed on preserved fruit. The Government would like to expand fruit production for the export market and offers a bounty of 25 percent ad valorem on all exports. The Banco Agrícola y Pecuario has planted bananas near Puerto Cabello to test export possibilities, but so far the conditions have not been favorable for export.

Half the wheat and barley production is in the State of Mérida. Production supplies only 20 percent of the domestic wheat needs. The duty of 0.24 bolívar per kilogram (3.25 cents a pound) on wheat flour raises the price of flour to all consumers but does not succeed in its purpose of stimulating self-sufficiency. Wheat grows only

FIGURE 12.—Tramping out wheat in the vicinity of Bailadores, a small wheat-growing district in the State of Mérida.

in a few States, and the difficult and high-cost transportation prevents movement to other consuming centers.

Mérida and Trujillo are the principal potato States. Almost half the total consumption needs are imported, principally from the Netherlands and the United States, in spite of a tariff of 2.4 cents a pound. The Government has distributed seed at low prices, but farmers use it for food rather than for planting.

Cotton

Cotton production is concentrated largely in Carabobo, Anzoátegui, and Portuguesa, these three producing half the total in 1936-37 (table 4). The estimated acreage in 1941 was 30,000, but yields were low and insect damage great. Average production of lint cotton is only 11,000 bales annually. Until 1939 the domestic production was practically sufficient to supply the six local textile mills, but in 1939 and 1940 the short crop made imports necessary for the first time since 1932. About 3,000 bales were imported duty-free in 1939, largely from the United States. In 1940 Peru supplied most of the imports.

The duty on raw cotton is 2.00 bolívares per kilogram (27.08 cents a pound). The local price was about three times the world price in 1938. The local textile products receive high protection also, and the mills are thus able to pay the high prices for raw cotton. Cotton-textile consumption, however, is limited.

Tobacco

Tobacco is protected by high duties on both unmanufactured tobacco and cigarettes. Duties on leaf and stem tobacco are 24 bolívares per kilogram ($3.25 a pound) and on cigarettes 12 bolívares per kilogram ($1.62 a pound). An export bounty of 20 percent ad valorem would be paid on exports of leaf, but none are made. Domestic production supplies the cigarette industry, and the latter supplies about 92 percent of domestic cigarette consumption. A tax of 15 bolívares ($4.88) per thousand is levied on all cigarettes used, whether made from foreign or domestic tobacco.

Livestock

Cattle are by far the most important class of livestock. More than 3 million cattle, 360,000 hogs, and 600,000 goats were counted in the 1936-37 census (table 6), and annual slaughter has recently averaged as follows:

Steers	247,000	Goats	46,000
Cows	43,000	Sheep	13,000

TABLE 6.—*Venezuelan livestock population, 1936-37*

ADMINISTRATIVE DIVISION	CATTLE	HORSES	MULES	ASSES	GOATS	SHEEP	HOGS
	Number	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Guárico	551,464	65,009	2,980	32,830	4,269	22	29,524
Anzoátegui	201,475	18,147	2,004	28,026	17,262	242	23,176
Bolívar	230,859	15,322	924	8,537	2,653	79	10,859
Apure	654,597	15,102	499	5,336	209	-	18,639
Monagas	126,109	12,020	1,604	9,756	1,687	112	20,092
Mérida	72,424	9,724	5,402	4,016	7,387	5,708	21,026
Táchira	44,158	7,879	4,795	1,653	4,116	1,674	15,410
Lara	73,910	6,218	3,893	16,143	127,856	19,212	14,341
Falcón	73,298	6,098	3,269	21,192	265,768	13,614	17,419
Trujillo	52,172	5,740	3,956	7,109	8,782	2,506	18,616
Cojedes	158,426	5,422	330	4,469	991	13	10,384
Zulia	211,111	4,139	3,092	7,585	114,547	15,299	50,120
Barinas	361,309	4,072	683	5,475	1,796	46	29,405
Aragua	74,856	4,044	1,757	3,554	568	87	4,654
Carabobo	49,344	2,935	1,418	3,028	746	83	6,568
Miranda	36,849	2,907	2,121	4,396	1,105	265	7,525
Portuguesa	63,229	2,593	1,014	9,812	7,016	144	25,873
Yaracuy	17,164	2,207	1,116	7,333	8,217	403	10,828
Delta Amacuro	18,648	2,137	83	773	900	20	5,854
Sucre	10,313	1,764	1,107	8,055	14,108	193	12,534
Federal District	6,446	496	971	1,168	16,734	193	1,275
Nueva Esparta	1,561	45	23	874	8,029	1,764	1,373
Amazonas	939	13	1	14	3	-	56
Total	3,090,661	194,033	43,042	191,134	614,749	61,678	355,551

[Venezuela] Ministerio de Agricultura y Cría *(10)*.

Cattle

The cattle industry has been important to Venezuela since colonial days, both in supplying domestic meat consumption and in the exportation of live animals and hides, and conditions are favorable for expanded development. Apure and Guárico in the llanos are the large producers (fig. 13). Good grazing land is available in parts of the llanos, although the heavy rains flood parts of the region in the wet season and the hot sun parches the vegetation during the rest of the year. Native cattle and cross-breeds of native with Zebu predominate in the llanos *(3)*.

Some cattle from the llanos are moved into the Caracas Valley to be fattened for market. Most

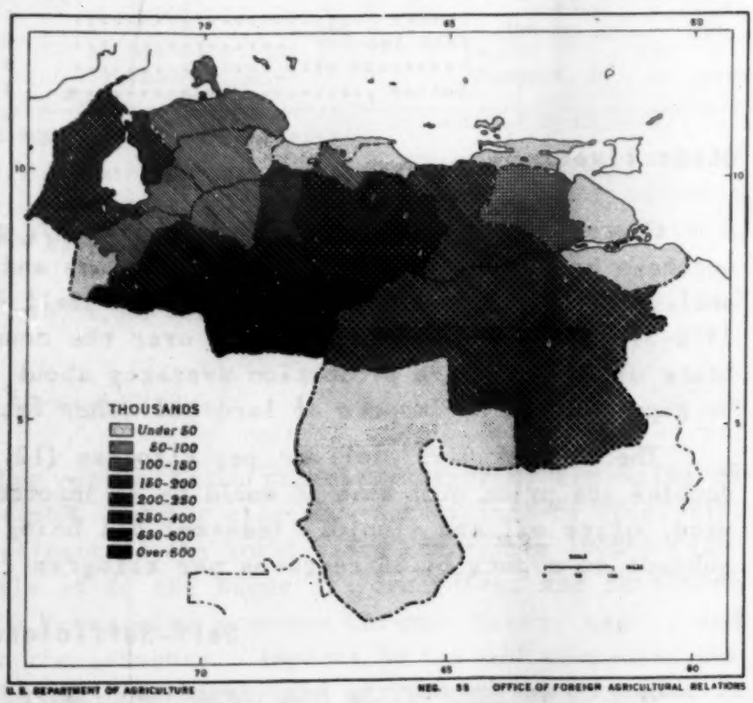

FIGURE 13.—Distribution of cattle population in Venezuela, 1936-37.

of the cattle are used for domestic meat production, but a few are exported - from 1,000 to 33,000 head a year - and some are used for dairying. About 24 million pounds of cheese and 800,000 pounds of butter are produced. There are a few dairies near the larger cities, but milk production is still largely undeveloped.

The Government contributes to the Association of Cattle Growers, maintains deticking stations in the cattle centers, and imports breeding stock from the United States to improve the stock of the experiment station. A law of July 10, 1941, makes the fencing of cattle lands obligatory. The Government will furnish wire and other materials to the owners at cost. Cattle exports have been encouraged, first by export subsidies and later by a premium on foreign exchange. Because of the increased prices and market possibilities, a decree of March 4, 1942, discontinued the exchange premium on cattle exports.

The Ganadera Industrial Venezolana, established in 1936 to improve the livestock industry and regulate meat prices, was taken over by the Government on February 9, 1942, and will be liquidated by the Banco Agrícola y Pecuario. The Ganadera operated the packing plant at Maracay and built a new plant at San Fernando de Apure in the llano cattle region. The Government will operate both plants through the Banco Agrícola. The new plant is a modern canning factory with a refrigerating unit. It will have outlets down the Orinoco River, overland to Maracay and Caracas, and through the Andean region to Colombia.

The local meat industry is protected by prohibiting the importation of frozen, dried, or salted meat except fish, fowls, hams, and bacon. Duties on cattle products are high, as indicated by the following tabulation *(6, pp. 210-212)*:

	Bolívares per kilogram	*Cents per pound*
Cheese	1.20	16.3
Sole leather	2.00	27.1
Preserved milk	0.50	6.8
Butter	2.40	32.5

Other livestock

Goats, numbering about 615,000 in 1936-37, graze on the steep hillsides of the northern highlands, cropping the sparse grass and contributing to the erosion of the soil. They furnish meat and milk for many small farmers. The 355,500 hogs raised in 1936-37 were scattered pretty well over the country, with about 14 percent in the State of Zulia. Lard production averages about 1.5 million pounds a year and must be supplemented by imports of lard and other fats and oils.

The duty of 0.90 bolívar per kilogram (12.2 cents a pound) on lard just about doubles its price over what it would be if imported free. Lard substitutes are widely used, olive oil and ajonjolí (sesame) oil being the most important. Olive oil is subject to a duty of 80 centavos per kilogram (10.8 cents a pound).

Self-Sufficiency

Venezuela must import much of its foodstuffs, especially grains, potatoes, fats, and oils. Table 7 gives the estimated self-sufficiency in important products. It is not an accurate statement of quantities produced and imported in any one year, but it

gives an over-all picture of Venezuela's dependence on foreign foodstuffs recently. In most years the corn crop is sufficient, although in 1939 about 8 percent of domestic needs was imported. Wheat flour, rice, and barley are imported, up to three-fourths or four-fifths of the total supply, as well as 40 percent of the potatoes. Three-fourths of the lard and almost half the butter supply comes from abroad.

TABLE 7.—*Estimated self-sufficiency of Venezuela in selected products*

COMMODITY	UNIT	PRODUCTION	IMPORTS	CONSUMPTION	
				QUANTITY	PERCENTAGE IMPORTED
					Percent
Grains:					
Corn	1,000 bushels	6,500	(1)	6,500	(1)
Wheat	1,000 bushels	230	1,000	1,230	81
Barley	1,000 bushels	11	75	86	[2] 87
Rice	1,000 pounds	8,500	24,000	32,500	74
Vegetables:					
Potatoes	1,000 pounds	15,300	10,800	26,100	41
Yuca	1,000 pounds	91,000	-	91,000	-
Beans	1,000 pounds	38,000	-	38,000	-
Yams	1,000 pounds	21,000	-	21,000	-
Peas	1,000 pounds	12,000	-	12,000	-
Onions	1,000 pounds	3,000	-	3,000	-
Sugar	1,000 pounds	245,000	-	245,000	-
Meats	1,000 pounds	[3] 131,000	[4] 4,500	[4] 135,500	3
Fruits:					
Bananas	1,000 stems	18,500	-	18,500	-
Plantains	1,000 stems	238,000	-	238,000	-
Fats and oils:					
Lard	1,000 pounds	1,500	4,400	5,900	75
Butter	1,000 pounds	800	700	1,500	47
Olive oil	1,000 pounds	-	1,400	1,400	100
Cheese	1,000 pounds	24,000	700	24,700	3
Condensed milk	1,000 pounds	(5)	5,000	(5)	(5)
Preserved and canned fruits and vegetables	1,000 pounds	-	4,000	4,000	100
Cotton	Bales	11,000	(6)	11,000	(6)
Tobacco	1,000 pounds	7,000	-	7,000	-

[1] Usually not large, but in 1939, 575,000 bushels were imported.

[2] During the past 2 years, imports have amounted to only 50 percent of requirements.

[3] About 90 percent beef; does not include poultry.

[4] Does not include fish products, which total another 4.5 million pounds.

[5] Unknown.

[6] Usually not large, but in 1939 and 1940, 4,500 bales were imported each year.

Foreign Trade

Since the rapid and spectacular expansion in petroleum exports, the value of Venezuela's exports, including petroleum, has far exceeded that of imports (fig. 14). Petroleum has made up from 90 to 95 percent of the total since the middle 1920's *(12)*. The exploitation of oil in Venezuela is in the hands of foreigners, and petroleum exports make their contribution to Venezuelan economy through taxes, wages, and transportation and other charges on the industry. Imports by the oil companies are duty-free under the oil contract with the Government, and adjustments must be made in both import and export trade figures for their transactions in order to obtain the balance-of-trade data applicable to Venezuelan economy *(6)*.

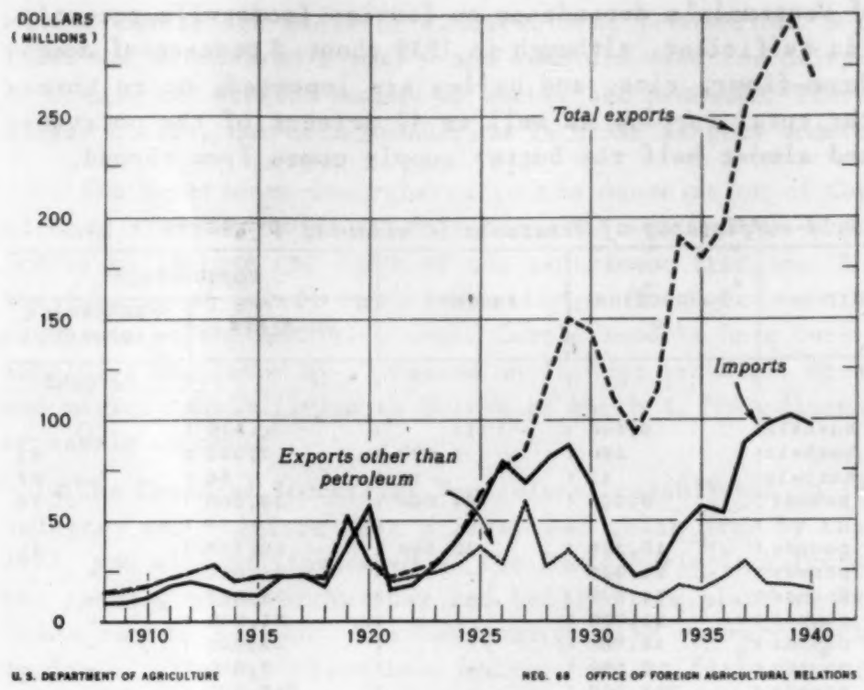

FIGURE 14.—Venezuelan exports and imports, 1910-40.

Coffee is the most important export after petroleum, and it accounts for from 50 to 60 percent of all other exports, although it is only 2 or 3 percent of the total. The value of agricultural and forest-product exports declined during the 1930's, although the quantity was maintained. The average value of the major exports, excluding petroleum, for the years 1937-39 are given below.

	1,000 dollars
Coffee	8,904
Cacao	3,552
Hides and skins	984
Cattle	674
Tonka beans	103
Wood	95
Balata	32
Divi-divi	32

The Netherlands West Indies is the largest market for Venezuelan exports, according to trade statistics, taking three-fourths of the total value. These exports, however, are largely crude petroleum for refining in the islands. It is later shipped to other markets, principally the United States and Great Britain. The United States is the second largest market for exports, chiefly petroleum, taking about 13 percent of the total before the war. The two principal agricultural exports, coffee and cacao, went largely to Europe before the war. Europe took three-fourths of the coffee and one-half the cacao (table 8). During the past year (1941) European markets have been cut off completely, and the United States and other Western Hemisphere countries have been taking the coffee and cacao formerly sent to Europe. The usual market for cattle hides was Europe, two-thirds going there in 1937, although that area took only one-fourth the goat hides and the United States the rest. The United States took practically all cattle and goat hides in 1940. Colombia is the largest market for cattle, all other cattle exports going to the Caribbean islands.

Imports have generally followed business cycles and have increased in value and volume recently. The petroleum companies receive from 20 to 30 percent of all imports into Venezuela. In 1938, for example, they imported 39 percent of all machines and vehicles, 65 percent of the metals, 40 percent of the nonmetallic minerals, and 35 percent of the wood and paper. The most valuable item, aside from imports for the petroleum companies, in 1937 was machinery, with textiles, foodstuffs, and metals, ranking next in importance (table 9).

The United States has long been the principal supplier of Venezuelan imports, furnishing half the total before the war, three-fourths in 1940, and about four-fifths in 1941. Before the war Germany had replaced the United Kingdom as second supplier.

Venezuela depended on the United States for more than three-fourths of its machinery and vehicles. More than half the foodstuffs were imported from the United States, with England, Europe, and Thailand important in this trade.

TABLE 8.—*Coffee and cacao exports from Venezuela, selected years*

COUNTRY	COFFEE				CACAO		
	1936	1937	1940[1]	1941[1]	1937	1939	1940
	1,000 bags	*1,000 bags*	*1,000 bags*	*1,000 bags*	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*
Germany	269	277	-	-	6,874	13,477	37
France	131	115	-	-	(2)	(2)	(2)
Other Europe	251	106	91	43	8,637	3,349	3,086
Total Europe	641	498	91	43	15,511	16,826	3,123
United States	237	178	361	488	11,574	11,021	20,617
Japan	(3)	(3)	10	10	(3)	(3)	(3)
Argentina	(3)	(3)	5	125	(3)	(3)	(3)
Trinidad	(3)	(3)	(3)	(3)	8,289	5,452	8,254
Other countries	16	18	8	64	470	601	1,617
Total	894	694	475	730	36,844	33,900	33,611

[1] Preliminary.

[2] If any, included in "other Europe."

[3] Included in "other countries."

TABLE 9.—*Principal imports into Venezuela and principal countries of origin as a percentage of total value of imports*

IMPORT GROUP	1937	1940	PRINCIPAL COUNTRY OF ORIGIN	1937	1940
	Percent	*Percent*		*Percent*	*Percent*
Machinery and vehicles	14.6	15.4	United States	52.8	73.7
Textiles	13.7	12.1	Other Western Hemisphere	2.0	4.9
Foodstuffs and beverages	9.4	13.3	United Kingdom	9.3	7.6
Metals and manufactures	5.7	6.3	Belgium	5.8	0.9
Chemicals	4.8	5.0	Netherlands	5.5	0.6
Nonmetallic minerals	2.7	3.3	Japan	3.1	3.2
Wood, paper, etc.	2.0	1.8	France	2.6	2.0
Supplies for oil companies	28.1	28.2	Italy	2.1	2.1
Others	19.0	14.6	Germany	13.6	0.4
Total	100.0	100.0	Others	3.0	4.6
			Total	100.0	100.0

[Venezuela] Ministerio de Hacienda *(14)*.

The sources of the principal foodstuffs before the war are shown in table 10, together with the shifts that have taken place since then. The United States used to furnish practically all the wheat flour, three-fourths of the prepared milk, one-third of the lard, and one-fourth of the potatoes. Continental Europe, particularly the Netherlands and Belgium, were important suppliers of potatoes, lard, and cheese.

United States exports to Venezuela increased from a value of 52 million dollars in 1938 to 68 million in 1940. The principal exports in 1940 are shown below *(8)*.

	1,000 dollars
Machinery and vehicles	24,475
Metals and manufactures	16,155
Foodstuffs and beverages	8,250
Chemicals and related products	4,004
Nonmetallic minerals	3,420
Textiles	3,339
Wood and paper	2,113

TABLE 10.—*Principal food imports into Venezuela, by countries of origin, 1937 and 1940*

COMMODITY AND COUNTRY OF ORIGIN	1937	1940	COMMODITY AND COUNTRY OF ORIGIN	1937	1940
	1,000 pounds	*1,000 pounds*		*1,000 pounds*	*1,000 pounds*
Rice:			Olive oil:		
Thailand	18,336	18,265	Italy	1,034	754
Netherlands	5,913	-	Turkey	-	661
Ecuador	-	7,332	Spain	18	201
United States	84	3,217	Others	205	377
Others	2,496	2,141	Total	1,257	1,993
Total	26,829	30,955			
Wheat flour:			Condensed milk:		
United States	54,492	84,370	United States	2,862	8,111
Others	200	4,907	Denmark	690	417
Total	54,692	89,277	Canada	-	2,388
Potatoes:			Others	317	380
Netherlands	5,119	1,005	Total	3,869	11,296
Belgium	1,497	-			
United States	2,961	7,676	Bacon:		
Colombia	40	2,024	United States	91	163
Others	1,333	82	Others	5	-
Total	10,950	10,787	Total	96	163
Lard:					
United States	842	9,473	Ham:		
Belgium	1,312	-	United States	(1)	1,565
Others	143	38	Argentina	(1)	84
Total	2,297	9,511	Denmark	(1)	18
Butter:			Others	(1)	13
Denmark	831	377	Total	-	1,680
United States	37	302			
Argentina	178	101	Sausage:		
Cuba	-	265	Denmark	(1)	97
Others	153	48	United States	(1)	231
Total	1,199	1,093	Argentina	(1)	29
Cheese:			Italy	(1)	18
Netherlands	1,149	802	Netherlands	(1)	2
Argentina	212	487	Canada	(1)	24
United States	55	331	Others	(1)	5
Others	160	205			
Total	1,576	1,825	Total		406

Estadistica Mercantil y Maritima *(14)*.

Prepared milk and wheat flour were the largest food exports, by value, sent by the United States to Venezuela, accounting for 47 percent of the total in 1940 (table 11).

TABLE 11.—*United States exports of food products to Venezuela, 1938-40*

COMMODITY	1938		1939		1940[1]	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
	1,000 pounds	*1,000 dollars*	*1,000 pounds*	*1,000 dollars*	*1,000 pounds*	*1,000 dollars*
Wheat flour	[2] 317	1,635	[2] 400	1,506	[2] 418	1,849
Oatmeal, groats, and rolled oats	4,335	404	4,773	398	3,030	229
Lard	3,470	331	11,463	909	8,570	575
Canned sardines	3,910	301	4,554	327	4,039	276
Dried and condensed milk	3,113	1,079	5,789	2,061	5,479	2,118
Canned pork	214	95	229	107	364	146
Hams and shoulders, cured	976	249	1,317	339	1,167	253
Biscuits and crackers	1,006	252	1,069	252	839	222
Potatoes	6,130	86	11,112	209	7,984	136
Other food	-	1,243	-	1,921	-	2,446
Total food	-	5,675	-	8,029	-	8,250

[1] Preliminary.

[2] 1,000 barrels.

U. S. Department of Commerce *(8)*.

Petroleum accounts for the greater part of the value of United States imports from Venezuela. It represented three-fourths of the 41-million-dollar imports in 1940. Coffee and cacao are the principal agricultural imports, and hides and skins are the only other items of importance (table 12).

TABLE 12.—*United States imports of principal agricultural products from Venezuela, 1938-40*

ITEM	1938		1939		1940	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
	1,000 pounds	*1,000 dollars*	*1,000 pounds*	*1,000 dollars*	*1,000 pounds*	*1,000 dollars*
Cocoa and cacao beans and shells	10,067	759	13,662	1,357	24,359	2,118
Coffee	23,951	1,963	20,170	1,781	45,572	2,921
Tonka beans	19	31	30	43	159	143
Other vegetable food products	-	-	-	69	-	23
Total vegetable food products	-	2,753	-	3,250	-	5,205
Hides and skins	979	416	1,320	582	1,524	653
Total imports for consumption	-	20,051	-	23,415	-	41,132

U. S. Department of Commerce *(8)*.

GOVERNMENT POLICIES AND PLANS

By 1935 the country was free from foreign debts, largely because of the taxes paid by the oil industry. The Government, however, had not been so successful in improving the living conditions of the people. Since 1935, steps have been taken calculated to revive the confidence of small farmers and workers in their Government. The new constitution of July 16, 1936, opened the way for labor and social-security legislation and for improvements in education, agriculture, and land settlement.

New schools are being built and sewage and water systems constructed. A Three Year Plan, started in 1938, provided for progressive Government action. The tangible results of the program are modest, but progress is being made in modernizing Venezuela *(1)*.

Social Legislation

The basic labor law, adopted in 1936, established a National Labor Board to settle certain differences, reduced the work week from 54 to 48 hours, gave legal status to labor unions, authorized paid vacations of 7 working days a year for wage earners and 15 days for salaried employees with more than 1 year's service, and provided that at least 75 percent of the employees of any business or establishment had to be Venezuelans. A further law of 1936 provided that in the mining of hydrocarbons and other combustible materials not less than 90 percent of the day laborers, 50 percent of the technical employees, and 75 percent of the office force had to be Venezuelan citizens. Wage discrimination because of sex or nationality was prohibited.

A compulsory profit-sharing plan went into operation in 1938 for industrial and commercial enterprises and for certain large agricultural and fishing establishments. The employees' share varies with the size and class of business from 2.04 to 14.45 percent. A compulsory social-insurance system, set up by the law of July 24, 1940, provides sickness and maternity insurance and insurance against industrial accidents and occupational diseases, and it is planned to extend it to cover old age, death,

and unemployment. Any large-scale agricultural development requiring laborers must be planned in the light of these labor provisions.

Commercial Policy

Import duties, export subsidies, commercial agreements, and exchange control all regulate foreign trade. Protective duties, which had been high for many years, were increased in 1930, 1933, 1934, and 1935. The tariff law of 1936 authorized the President to double import duties at his discretion, to establish quotas and import prohibitions, and to negotiate commercial agreements.

The exchange value of the bolivar appreciated in 1933 and 1934 as the gold value of other currencies declined. To prevent further appreciation, the Government, the banks, and the oil companies agreed in 1934 that dollar exchange be purchased at a fixed rate and sold at a slightly higher rate. The Government uses the money obtained from the differential to aid agriculture. The National Exchange Centralization Office, set up in February 1937, now regulates all exchange operations and allocates exchange in the following order of priority: Government payments abroad, strictly commercial payments abroad, payment of interest or dividends on foreign capital invested in Venezuela, and other demands *(9)*.

Commercial agreements were concluded with Denmark, France, Germany, Italy, Japan, and the United States in the years between 1929 and 1939. The war, of course, makes all of these except that with the United States ineffective. Under the trade agreement between the United States and Venezuela *(2)*, signed November 6, 1939, the United States granted concessions on 14 items, 7 of them agricultural: Ground barbasco or cube root, tonka beans, orchid plants, cacao or cacao beans, coffee, gutta balata, and crude cube root. Venezuela granted concessions on 96 items. These include duty reductions on wheat flour, lard, apples, grapes, and pears, a number of dried fruits, canned or bottled fruits, and vegetable preparations, and binding of duty on prepared milk, crushed and rolled oats, hams and canned pork, bacon, oat flour, and pork sausage.

Plans for Agricultural Betterment

Before 1935, aid for agriculture was limited to high import duties and bounties to coffee and cacao growers, totaling about 20 million bolívares annually. Protective import duties have been in effect for many years on agricultural products competing with those grown in Venezuela and on manufactured goods made from locally produced raw materials. The duties, however, have succeeded only in raising the cost of living and not in producing local self-sufficiency in the production of those products.

A new policy proclaimed on December 21, 1935, provided for subsidies to coffee growers. The next month a decree provided for export bounties on coffee, cacao, sugar, oleaginous seeds and their derivatives, cattle hides and other cattle products, fruits and vegetables, rum, aqua vitae and alcohols in general, tobacco and its products, and corn and its products. The Banco de Venezuela was also authorized to buy coffee and cacao at market prices for the account of the Treasury to relieve producers. The export bounties were designed to tide the industry over the emergency period brought about by the upward valuation of the bolívar in 1934 and were not primarily to improve

existing conditions. In July 1941 export bounties were eliminated on divi-divi, sheepskins, goatskins, sharkskins, chicle, bananas, and certain forest products, and the export assistance for coffee and cacao growers was changed from a bounty to a premium on foreign exchange.

The Government buys and distributes free or at reduced prices many good seeds, but most of the farmers do not yet realize their value and the program has not been entirely successful. The Government in 1938 distributed free 54,000 sisal seedlings, 15,000 banana plants, 200,000 pounds of seed rice, and 150,000 pounds of seed wheat, and sold at cost 2,600,000 pounds of seed potatoes. Machinery has also been provided free to many small farmers, but education is necessary to enable them to use the machines effectively.

The Ministry of Agriculture and the Banco Agricola y Pecuario were authorized to March 21, 1936, to lend money to persons or corporations for agricultural purposes at 5 percent interest, the loans to be limited to 10,000 bolívares each. Before these Government loans were authorized, small farmers had difficulty in securing any kind of loans for their operations and only at 10 percent interest a month. The credit policy was further liberalized in 1938 and loans made available to farmers through the Banco Agricola y Pecuario and the Cajas Rurales at lower interest rates. The Import-Export Bank at Washington loaned the Banco Agrícola y Pecuario $3,000,000 late in 1941 to be used to aid agriculture and the livestock industry. This loan is the first foreign debt the Venezuelan Government has contracted recently and is now the only direct foreign debt, although the Government guaranteed a loan of the Ganadera Industrial Venezolana in 1940 for $200,000.

The Ministry of Agriculture recognizes the need for a larger agricultural population and encourages land settlement. Several colonies have been established with carefully chosen immigrants, and during 1938 a Technical Institute of Immigration and Colonization was set up to aid immigration.

In November 1941 the Ministry started a propaganda campaign to increase the production of oilseeds, and a joint stock company was organized to exploit the fique fiber for the manufacture of coffee bags. A small beginning has been made to reforest areas, establish a forest patrol, and educate the people on the value of forest cover. Free public markets have been established in several towns, and the Government plans to extend them throughout the Republic.

About half the cultivable land near the lake in the fertile Valencia Valley belongs to the Government and could be made available for expanded production of many crops. Between the subsistence farms around the lake and those on the lower hillsides lies 120,000 acres of level land ideally suited to mechanized agriculture, which would furnish part-time employment for the subsistence families on either side. Development of irrigation and drainage in this area would enable farmers resettled from the less productive lands to make a living, as well as a surplus for sale to surrounding areas. The valley is only a short distance from Caracas, and transportation facilities are good to that market. Mechanized planting and cultivation of cotton in the Valencia Lake Basin reduced costs and increased yields and quality after only 2 years of intensive work *(4)*. A tobacco farm of 265 acres in this region provides a school, a cooperative store, and houses for its workers. An irrigation system and scientific production methods enable it to produce half the tobacco used in the domestic industry. This shows what could be done with other crops in the valley. Fertile land farther

from market and with fewer transportation facilities would lend itself to long-term improvement plans that include development of marketing and transportation.

The Venezuelan Government recognizes the need for a definite agricultural program and has made a sincere effort to improve its agriculture. The financial position of the country is good, largely because of the funds from taxation of the oil industry. Only planning and direction are needed to provide an effective long-time program. Some of the immediate needs are:

(1) Development of a well-staffed experiment station. The Venezuelan Government could use the services of outside technical experts to advise on plans and procedures.

(2) Expansion of the extension service to get information to farmers. Inspectors and a few extension men are now available in Venezuela to form the nucleus of such an expanded system. Agents might begin their work through the agricultural clubs that have been developed in many sections.

(3) Extension of the present practice of training extension leaders and technicians in foreign schools of agriculture, and further development of agricultural schools in Venezuela.

(4) Cooperation between the United States and Venezuelan Departments of Agriculture and exchange of technical information.

The data developed in the experiment station would provide a basis for long-time planning of soil-erosion control, relocation of farmers from the badly eroded hillsides to more fertile lands farther down the mountains or in the valleys, development of self-sufficient farm units, provision of credit and marketing organizations, and improvement in transportation facilities.

The great need is not for money crops to export but food crops to improve the health of the people. Soils and climate are favorable for producing rice, yuca, potatoes, corn, fresh vegetables and fruits, and livestock. About 40 percent of the farmers, however, live on small pieces of eroded land that will not yield them enough bread, potatoes, and vegetables to strengthen their bodies against disease. A relocation and rehabilitation program would provide not only better land on ample credit terms, but councilors to plan a year-round crop and livestock program and to teach the women to provide their families with a more healthful diet.

Already the Government has developed a skeleton staff that could serve as the framework for more intensive training of farmers and better utilization of resources.[3] Students are being sent to other countries to learn improved methods, and experimental farms have been established in various parts of the country to serve as models, as well as to perform necessary experimental work on livestock and plants. An agricultural and zootechnic school and a school of veterinary medicine were established near Caracas in 1938, and there are several other new schools to train foremen and managers of coffee and cacao farms. Government experts in livestock and crop production travel through the country to give advice and report on crop and weather conditions. Agricultural clubs in many places are starting educational programs.

Though the food-crop, meat, and dairy production are most important for the local diet, there are many products that could be developed for complementary trade with

[3] SATTERTHWAITE, LIVINGSTON. VENEZUELA CONTEMPLATES GREATER ENCOURAGEMENT TO AGRICULTURE. U. S. Cons. Rpt. 1939. [Summary in Foreign Agr. 3: 40-41. 1939.]

the United States. The Government-controlled Compañía Amanima Bananera Venezolana, has a concession of 15,000 acres along the Yaracuy River for the production of bananas. The new fiber plant in the State of Táchira may prove that fique can be exploited for profitable production of bags. Other fibers grow wild in the country, and sisal and abacá could no doubt be produced if transportation were available. Oil palms are now growing in the forests ready for capital to exploit them and move their products to market. The same is true of other forest products, including lumber, copaiba, divi-divi, balata, vanilla, and rubber. A staff of trained men from the United States is already working to increase rubber production.

A private company made a survey of irrigable land several years ago, and a group of United States Department of Agriculture specialists are now studying the soil-conservation problems of Venezuela. An American expert also made a study of the livestock industry in 1940 *(3)*. These and other surveys and studies provide a framework for planning an agricultural program to raise the living standards of the people, as well as provide complementary products for the United States market.

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